



Joint Base Pearl Harbor-Hickam (JBPHH) Public
Water System No. HI00000360 & Aliamanu Military
Reservation (AMR) Public Water System No.
HI00000337

Extended Drinking Water Monitoring Plan:
First Quarterly Report

Sampling Results Report for the JBPHH System
(April – June 2024)

21 July 2025



Contents

Section 1.	Introduction	1
1.1	Background.....	1
1.2	EDWM Schedule.....	3
Section 2.	EDWM Sampling Locations	5
Section 3.	EDWM Sampling Results.....	8
3.1	Analyte Exceedances.....	8
3.2	Total Petroleum Hydrocarbons Detections	8
3.3	Other Analyte Detections	13
	Benzo(a)pyrene	13
	Lead.....	15
	1,2-Dibromoethane (EDB).....	17
Section 4.	Quality Assurance/Quality Control Sampling	19
4.1	Monthly Performance Evaluation Monitoring	19
4.2	Matrix Spike/Matrix Spike Duplicates	19
4.3	EPA Co-Sampling	19
4.4	Non-Source Water Shaft Samples	20
Section 5.	Water Quality Action Team	22
5.1	Summary of Calls Received by the WQAT	22
5.2	Summary of Water Quality Action Team Investigation.....	24
Section 6.	Conclusions	27



Tables

Table 1	EDWM Schedule Summary
Table 2	EDWM Sampling Location Summary
Table 3	Summary of Samples Collected during LTM and EDWM by Location (as of June 2024)
Table 4	Summary of Residential Sampling Completed during LTM and EDWM (as of June 2024)
Table 5	Contaminants Detected in Drinking Water Samples Collected from Residences
Table 6	Contaminants Detected in Drinking Water Samples Collected from Schools
Table 7	Contaminants Detected in Drinking Water Samples Collected from CDCs
Table 8	Contaminants Detected in Drinking Water Samples Collected from Other Locations
Table 9	Contaminants Detected in Drinking Water Samples Collected from Hydrants
Table 10	Contaminants Detected in Drinking Water Samples Collected from Source Water (Waiawa Shaft)
Table 11	Summary Statistics for Samples Analyzed during First Quarter (April – June 2024) of EDWM
Table 12	Summary of TPH Results by Location Type (April – June 2024) of EDWM
Table 13	Summary of TPH Detections Reported during First Quarter (April – June 2024) of EDWM
Table 14	Summary of Benzo(a)pyrene Results by Location Type (April – June 2024) of EDWM
Table 15	Summary of Lead Results by Location Type (April – June 2024) of EDWM
Table 16	Summary of 1,2-Dibromoethane (EDB) Results by Location Type (April – June 2024) of EDWM
Table 17	Summary of Monthly PE Monitoring Sample Results (April – June 2024)
Table 18	Summary of Navy Sample Results from EPA Co-Sampling Events (April – June 2024)
Table 19	Summary of Navy Aiea-Halawa Shaft (Pre-Chlorination) Results (April – June 2024)
Table 20	Summary of Red Hill Shaft (Pre-Chlorination) Results (April – June 2024)
Table 21	Summary of WQAT Investigations (April – June 2024)
Table 22	Summary of WQAT Observations and TPH Results (April – June 2024)



Figures

- Figure 1 EDWM Sampling Zones
- Figure 2 First Quarter (April – June 2024) EDWM Sampling Locations
- Figure 3 First Quarter (April – June 2024) EDWM TPH Sampling Results
- Figure 4 First Quarter (April – June 2024) EDWM Benzo(a)pyrene Sampling Results
- Figure 5 First Quarter (April – June 2024) EDWM Lead Sampling Results
- Figure 6 First Quarter (April – June 2024) EDWM 1,2-Dibromoethane Sampling Results
- Figure 7 Total Water Quality Concerns (April – June 2024)
- Figure 8 April 2024 WQAT Sample Locations
- Figure 9 May 2024 WQAT Sample Locations
- Figure 10 June 2024 WQAT Sample Locations

Appendices

- Appendix A Extended Drinking Water Monitoring Frequently Asked Questions
- Appendix B Safety Data Sheet for Hydrant Lubricants at JBPHH System
- Appendix C Tier 1 Analysis Tech Memos
- Appendix D First Quarter (April – June 2024) of EDWM MS Results
- Appendix E EDWM Quarter 1 WQAT Summary Tech Memos/Checklists



Acronyms and Abbreviations

ACO	Administrative Consent Order
Army	United States Army
ATSDR	Agency for Toxic Substances and Disease Registry
CDCs	Child Development Centers
COA	Course of Action
CRI	Community Representative Initiative
DOH	State of Hawaii Department of Health
EDB	1,2-Dibromoethane
EDWM	Extended Drinking Water Monitoring
EPA	United States Environmental Protection Agency
JBPHH	Joint Base Pearl Harbor-Hickam
JP-5	Jet Propellant, Grade 5
LTM	Long-Term Monitoring
MCLs	Maximum Contaminant Levels
MDL	Method Detection Limit
MRL	Method Reporting Limit
MS	Matrix Spike
NAH	Navy-Aiea Halawa Shaft
Navy	United States Navy
PAHs	Polycyclic Aromatic Hydrocarbons
PE	Performance Evaluation
PIANO	Paraffins, Isoparaffins, Aromatics, Naphthalenes, and Olefin
PWS	Public Water System
QA/QC	Quality Assurance/Quality Control
RH	Red Hill Shaft
SDS	Safety Data Sheet
SME	Subject Matter Expert
System	Joint Base Pearl Harbor-Hickam Drinking Water Distribution System
TPH	Total Petroleum Hydrocarbon
TPH-D	Total Petroleum Hydrocarbon, Diesel Range Organics
TPH-G	Total Petroleum Hydrocarbon, Gasoline Range Organics
TPH-O	Total Petroleum Hydrocarbon, Oil Range Organics
TTHM	Total Trihalomethanes
U.S.	United States
WQAT	Water Quality Action Team



Section 1. Introduction

This report documents the results of the first quarter (i.e., April – June 2024) of Extended Drinking Water Monitoring (EDWM) of the Joint Base Pearl Harbor-Hickam (JBPHH) Drinking Water Distribution System (System). Drinking water sampling was conducted in accordance with the EDWM Plan developed by the U.S. Navy, the U.S. Army, and a team of technical and subject matter experts (SMEs).^{1,2} The EDWM Plan was implemented immediately following the completion of long-term monitoring (LTM) of Public Water Systems (PWS) #HI0000360 and PWS #HI0000337 in March 2024.³

The Navy is committed to providing safe drinking water to all JBPHH System users. As part of this commitment, the Navy voluntarily implemented the EDWM program to conduct enhanced drinking water monitoring and a more fuel-related investigatory approach to demonstrating JP-5 and other fuels are not impacting the System. The Navy intends to sample all residences that were not sampled under LTM, in order to thoroughly investigate the System. EDWM is one of several steps taken by the Navy to demonstrate the System is no longer impacted by the November 2021 Red Hill release of JP-5.

Data collected during the first quarter (i.e., April – June 2024) of EDWM show no evidence of jet propellant, grade 5 (JP-5) fuel or other fuels in or impacting the System. The System continues to meet all State and Federal standards.

1.1 Background

The Navy voluntarily initiated the EDWM program and began sampling in April 2024, immediately following the completion of LTM, to ensure that it delivered on its commitment to investigate potential fuel related contamination in the System. The U.S. Environmental Protection Agency (EPA) approved the final EDWM Plan on 23 October 2024. EDWM incorporates the lessons learned from LTM (e.g., refining analytical methods) and focuses on JP-5 and other fuel-related analytes in order to continue to demonstrate that the November 2021 Red Hill release is not impacting the System and continue to ensure the System meets all state and federal standards, and that the water is safe for consumption.

In accordance with the EDWM Plan, the Navy will sample the following locations:

- Waiawa Shaft (entry point to the distribution system): every month for most parameters and quarterly for others. Samples of the source water will be collected pre- and post-chlorination prior to distribution into the System.
- Navy Aiea-Halawa (NAH) Shaft and Red Hill (RH) Shaft raw source water (pre-chlorination) quarterly. Note: These shafts do not provide drinking water to the JBPHH System and are inactive. These samples are collected for informational purposes only.

¹ The EDWM Plan for the JBPHH PWS #HI0000360 and Aliamanu Military Reservation PWS #HI0000337 is available at: https://jbphh-safewaters.org/public/JBPHH_EDWM_Plan_17Jun24.pdf.

² The EDWM Plan is an evergreen document and will continue to be updated based on field experience and the recommendations of SMEs, Navy and Army leadership, U.S. Environmental Protection Agency (EPA), and Hawaii Department of Health (DOH). The EDWM Plan was finalized on 23 October 2024. This document reflects the changes in the latest version of the EDWM Plan, however, there may have been revisions to drinking water analyses not reflected in the first quarter dataset. Any discrepancies between the original version of the EDWM Plan and the newest version will be called out.

³ For the purposes of this Plan, PWS #HI0000360 and PWS #HI0000337 will be considered a single distribution system divided into Zones.



- Houses that were not sampled during LTM will be sampled in each of the 20 Zones on the System (see Figure 1). The Navy will provide residents with the opportunity to have their homes sampled to pursue 100% coverage of remaining residences by the end of the 12-month EDWM. A single drinking water sample will be collected from each residence.
 - Approximately 65% of residences within each Zone were sampled during LTM, leaving approximately 35% to be sampled during EDWM. Note: The Navy will attempt to sample 100% of the houses in Manana Housing during EDWM in order to be consistent with all other Zones. 100% coverage is the overarching goal; however, the Navy will not force residents to have their homes sampled.
- Priority Buildings (i.e., schools, Child Development Centers [CDCs], medical clinics) in all Zones every month; and
- Hydrants in Zones where residences were sampled during the month (hydrants in Zones where residences were not sampled during the month will not be sampled).

EDWM is a surveillance tool intended to identify and evaluate potential JP-5 or other fuel-related impacts to continue to demonstrate that the November 2021 Red Hill release (or any other fuel-related concern) is not impacting the JBPHH System. The EDWM is one of the drinking water surveillance efforts that the Navy is implementing to continue to ensure the JBPHH drinking water is safe by meeting all State and Federal drinking water standards. At the start of EDWM, the Navy also implemented the Water Quality Action Team (WQAT; independent of and not required under EDWM) to expand the functionality of the previous Rapid Response Team in order to provide a more robust water quality concern response capability, complimentary to EDWM. Additional information regarding EDWM is provided in Appendix A (Frequently Asked Questions).

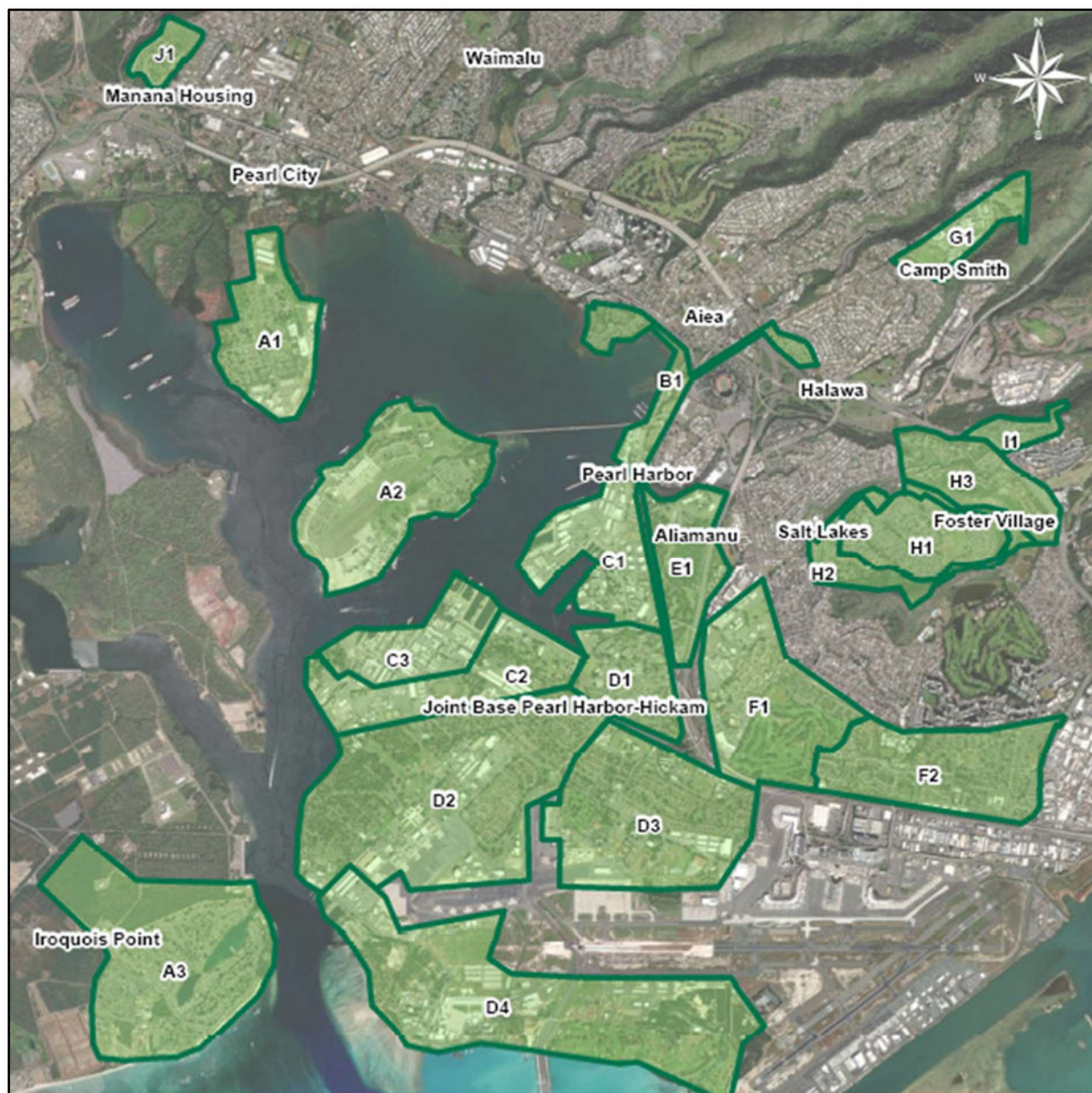


Figure 1. EDWM Sampling Zones

1.2 EDWM Schedule

EDWM sampling began in April 2024, one month after the completion of the 24-month LTM Sampling Program. In accordance with the EDWM Plan, sampling is performed on a monthly basis and results are reported on a quarterly basis. Summaries of the EDWM sampling, including copies of the EDWM Quarterly Reports, will be posted on <https://jbphh-safewaters.org/>. Below is a summary of the drinking water sampling completed under EDWM.

**Table 1. EDWM Schedule Summary**

Sampling Event	Summary of Sampling Activities	Completion Date
First Quarter	25% of remaining houses, priority buildings, and distribution system (i.e., hydrants)	June 2024
Second Quarter	25% of remaining houses, priority buildings, and distribution system (i.e., hydrants)	September 2024
Third Quarter	25% of remaining houses, priority buildings, and distribution system (i.e., hydrants)	December 2024
Fourth Quarter	25% of remaining houses, priority buildings, and distribution system (i.e., hydrants)	March 2025



Section 2. EDWM Sampling Locations

Under EDWM, 4,954 drinking water samples are scheduled to be collected and analyzed. During the first quarter of EDWM, 1,641 drinking water samples were collected from residences, schools, CDCs, hydrants, and other priority buildings (e.g., medical clinics) in accordance with the EDWM Plan and the WQAT's protocol. Although the WQAT is a separate program, independent of EDWM, and is not a requirement under the EDWM Plan, the results of the WQAT drinking water samples are included in this report to support the overall evaluation of drinking water in the System. Drinking water samples were collected from 16 of the 20 Zones in accordance with the EDWM Plan.⁴ Drinking water samples were collected from 7 of the 20 Zones (i.e., A3, C1, D2, F1, F2, H1, and H3) in accordance with the WQAT's protocol.

Table 2. EDWM Sampling Location Summary

Location Type	Number of Samples Collected				Total Number of Samples
	1 st Quarter (Apr – Jun 2024)	2 nd Quarter (Jul – Sept 2024)	3 rd Quarter (Oct – Dec 2024)	4 th Quarter (Jan – Mar 2025)	
Residence	926	Sampling to be completed July – September 2024 and reported in the Second Quarterly Report.	Sampling to be completed October – December 2024 and reported in the Third Quarterly Report.	Sampling to be completed January – March 2025 and reported in the Fourth Quarterly Report.	926
School	172				172
CDC	126				126
Other Locations	41				41
Hydrants	376				376
Total Samples Collected To-Date					1,641

The EDWM sampling locations are shown in Figure 2.

⁴ There are no residences in Zones C1 and D4; therefore, no drinking water samples were collected during the first quarter of EDWM. No samples were collected from Zones C3 and G1. These Zones have few residences (i.e., 6 residences and 10 residences, respectively) and 100% of residences were sampled during LTM. Residential sampling is not planned in these Zones under EDWM; however, residents may request sampling, through the WQAT, if they have water quality concerns.



Figure 2. First Quarter (April – June 2024) EDWM Sampling Locations

There are 9,883 residences on the System. In LTM, 6,669 residences (67%) of were sampled, which left 3,214 residences to be sampled under EDWM. Between April and June 2024, 926 residences (28% of the residences not sampled during EDWM) on the System were sampled. A total of 7,595 residences (77% of all residences on the System) have been sampled as of June 2024 (i.e., total number of residences sampled during LTM + EDWM). The total number of samples collected as part of LTM and EDWM and a summary of EDWM completion are provided in the following tables.

**Table 3. Summary of Samples Collected during LTM and EDWM by Location (as of June 2024)**

Location Type	EDWM Sample Summary			Number of Samples Collected During LTM	Total Number of Samples Collected (LTM + EDWM)
	Number of Samples Collected During EDWM (Apr - Jun)	Estimated Number of Samples Scheduled for EDWM	EDWM Completion Percentage		
Residence	926	3,214	29%	6,669	7,595
School	172	660 ¹	26%	302	474
CDC	126	504 ¹	25%	405	531
Other Locations	41	156 ¹	26%	688	729
Hydrants	376	-- ¹	--	845	1,221
Total Samples	1,641	--	--	8,909	10,550

Notes:¹ In accordance with Table 2-1 of the EDWM Plan:

Five samples from 11 schools will be collected on a monthly basis.

Two samples from 21 CDCs will be collected on a monthly basis.

One sample from 13 other locations will be collected on a monthly basis.

There is no estimated number of hydrant samples. One sample will be collected from each hydrant each month where residential sampling is being conducted in that zone.

Table 4. Summary of Residential Sampling Completed during LTM and EDWM (as of June 2024)

Zone	Total Number of Residences	Number of Residences Sampled in LTM	Number of Residences Samples During EDWM (Apr - Jun)	Total Number of Residences Sampled (LTM + EDWM)	Completion Percentage
A1	635	423	58	481	76%
A2	411	303	45	348	85%
A3	1,459	959	114	1,073	74%
B1	227	167	20	187	82%
C1	-	-	-	-	-
C2	32	25	5	30	94%
C3	6	6	-	6	100%
D1	508	342	46	388	76%
D2	1,577	1,119	141	1,260	80%
D3	912	615	71	686	75%
D4	-	-	-	-	-
E1	89	84	8	92 ¹	100%
F1	752	512	54	566	75%
F2	1,435	976	136	1,112	77%
G1	10	10	-	10	100%
H1	918	635	90	725	79%
H2	230	150	28	178	77%
H3	379	248	43	291	77%
I1	135	93	11	104	77%
J1	168	2	56	58	35%
Total	9,883	6,669	926	7,595	77%

Notes:

¹ In some instances, the total number of residences sampled during LTM and EDWM is greater than the total number of residences in that zone. Some residences have been sampled during LTM and EDWM. This could be for several reasons, such as the residence calling into the WQAT Call Center and requesting their residence be sampled by the WQAT or the residence was resampled as part of a water quality investigation (e.g., detection of TPH or other fuel indicator compounds in accordance with Section 5 of the EDWM Plan [if necessary], resampling locations where elevated TPH detections were reported in LTM, or bracket sampling when a TPH detection was reported at a nearby residence).



Section 3. EDWM Sampling Results

This section summarizes the results of the EDWM drinking water samples collected and analyzed during the first quarter of EDWM. The following tables summarize the contaminants detected in drinking water samples⁵:

- Table 5 Contaminants Detected in Drinking Water Samples Collected from Residences
- Table 6 Contaminants Detected in Drinking Water Samples Collected from Schools
- Table 7 Contaminants Detected in Drinking Water Samples Collected from CDCs
- Table 8 Contaminants Detected in Drinking Water Samples Collected from Other Locations
- Table 9 Contaminants Detected in Drinking Water Samples Collected from Hydrants
- Table 10 Contaminants Detected in Drinking Water Samples Collected from Source Water (Waiawa Shaft)

3.1 Analyte Exceedances

There were no exceedances of maximum contaminant levels (MCLs) or Action Levels (ALs) in drinking water samples collected during the first quarter of EDWM.

3.2 Total Petroleum Hydrocarbons Detections

Total petroleum hydrocarbons (TPHs) were detected in 0.24% (i.e., 4 of 1,641) drinking water samples collected during the first quarter of EDWM. A summary of TPH detections reported during EDWM are summarized in the tables presented below.

Table 11. Summary Statistics for Samples Analyzed during First Quarter (April – June 2024) of EDWM

Summary Statistic	TPH-D	TPH-G	TPH-O	Total TPHs
Number of Samples Analyzed	1,641	1,641	1,641	1,641
Number of Detections	1	1	3	4
Detection Frequency (%)	0.061%	0.061%	0.18%	0.24%
Minimum Detected Concentration (ppb)	92	137	48	48
Maximum Detected Concentration (ppb)	92	137	1,460	1,552
Average Detected Concentration (ppb)	92	137	524	450

Notes:

TPH-D: Total Petroleum Hydrocarbons, Diesel Range Organics

TPH-G: Total Petroleum Hydrocarbons, Gasoline Range Organics

TPH-O: Total Petroleum Hydrocarbons, Oil Range Organics

⁵ These tables include the results from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT.

**Table 12. Summary of TPH Results by Location Type (April – June 2024) of EDWM**

Sample Location Type	Contaminant	Units	Screening Level	Basis for Screening Level	EDWM Summary – First Quarter	
					No. of Detects out of Samples	Minimum – Maximum (Average) ¹
Residences	Total Petroleum Hydrocarbons (Total)	ppb	-- ²	-- ²	1/926	62 – 62 (62)
Schools					0/172	--
Child Development Centers					0/126	--
Non-Residences					0/41	--
Hydrants					3/376	48 – 1,552 (579)
Waiawa Shaft – Post Chlorination					0/3	--

Notes:

¹ These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

² There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH above the MDL are investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

Total petroleum hydrocarbons (TPHs) results represent all hydrocarbons present in that sample and are not necessarily fuel-related (known as petrogenic). TPHs are also naturally occurring biogenic (e.g., bacteria, algae) or pyrogenic (e.g., produced by combustion). JP-5 (i.e., the fuel released from Red Hill in November 2021) contains no chemicals in the TPH-O range. A detection of TPH-O is likely associated with location-specific impacts, such as lubricants used to maintain a fire hydrant and not JP-5.

Consistent with industry standards, common food-grade lubricants (e.g., white mineral oil) are used to service hydrants throughout the JBPHH System. Food-grade, means they are safe for incidental contact with food or animal products as long as they do not exceed certain concentrations. As water passes through the hydrant, it may come in contact with any residual lubricants. These lubricants will be reported as TPH-O by the laboratory if they are present in the sample. The Safety Data Sheet (SDS) for the food-grade lubricants used on the JBPHH System are provided as Appendix B.

When TPH is detected at a concentration greater than the method detection limit (MDL), additional investigation (in accordance with Course of Action [COA] 3 in Section 5.2.3 of the EDWM Plan) is conducted. This investigation includes:

- An initial assessment to verify the TPH result reported by the laboratory is not associated with blank contamination (i.e., method blank, field blank, or blind blank). If the results are not associated with blank contamination, the evaluation proceeds to Tier 1.
- A Tier 1 screening includes a detailed review of the laboratory report to determine if the detection is due to laboratory contamination, a petrogenic source (e.g., JP-5 or other fuel-related analytes), a non-petrogenic source, or inconclusive. If the detection is not due to a JP-5 or other fuel-related petrogenic source, then the Tiered evaluation will



STOP at Tier 1. The results of this analysis will be documented in a Technical Memorandum.⁶

A summary of TPH reported during the first quarter of EDWM is provided in the table below.

Table 13. Summary of TPH Detections Reported during First Quarter (April – June 2024) of EDWM

Zone	Location Type	Address	Sample Date	Analyte	Result (ppb)	Result of Initial Assessment/ Tier 1 Analysis
D2	Hydrant	Hydrant 236	15 April 2024	TPH-O	48.4 J	This detection is likely associated with the food-grade lubricants certified by the manufacturer to lubricate the internal parts of hydrants (e.g., valves). A Tier 2 analysis was recommended to confirm this potential source.
D2	Residence	132 19 th Street	28 May 2024	TPH-O	62.4 J	The detection is likely due to cross-contamination from incidental contact with the lab ORO calibration standard. A Tier 2 analysis was recommended to confirm this potential source.
D2	Hydrant	Hydrant 365	29 May 2024	TPH-G	137	Isopropyl alcohol, which is the disinfectant used in the field prior to sample collection, was confirmed in the sample. Therefore, the detection is associated with field contamination.
D2	Hydrant	Hydrant 79	30 May 2024	TPH-D TPH-O	92.4 J 1,460	The chromatogram conclusively demonstrated this detection is associated with the food-grade lubricants certified by the manufacturer to lubricate the internal parts of hydrants (e.g., valves).

Per COA 3, each TPH detection was investigated further, to determine if the TPH result was related to JP-5 or other fuel-related analytes in the System. Below is a summary of the results of the additional investigation conducted for TPH detections reported during the first quarter of EDWM:

1. Hydrant 236 (Zone D2)

- TPH-O was detected at 48.4 ppb in the sample collected from Hydrant 236 (Zone D2) on 15 April 2024 (Field Sample ID No. D2-DL-0017711-24092-N). EPA was notified of the detection on 24 April 2024, when the Navy received preliminary results from the analytical laboratory. After the preliminary results were received, the Navy initiated a Tier 1 investigation. The Tier 1 evaluation for Hydrant 236 is presented in Appendix C. Investigation into this detection determined it was likely associated with food-grade lubricants used for servicing hydrants and not associated with JP-5 or other fuel-related analytes in the System. However, Hydrant 236 was resampled and two additional hydrants (one upgradient and downgradient of the original hydrant) were sampled on 29 May 2024 and 11 June 2024. The results of the resampling and additional samples were non-detect for TPH. On 06 August 2024, the Navy voluntarily conducted a Tier 2 analysis, and an additional sample was collected from Hydrant 236. Results of the Tier 2 analysis (i.e., Paraffins, Isoparaffins, Aromatics, Naphthalenes, and Olefin [PIANO] analysis) confirmed the presence of food-grade

⁶ The Navy may elect to perform additional analysis (i.e., Tier 2 analysis) on some samples if the results of the Tier 1 assessment concludes that the Method 8015 TPH extract detection may be due to a JP-5 or other fuel-related petrogenic source. The Tier 2 analysis is voluntary and is not part of the EDWM.



lubricants used for servicing hydrants and confirmed the TPH detection at this location was not associated with JP-5 or other fuel-related analytes. Results of the Tier 2 analysis evaluation are documented in a separate technical memorandum.

2. 132 19th Street (Zone D2)

- TPH-O was detected at 62.4 ppb in the sample collected from 132 19th Street (Zone D2) on 28 May 2024 (Field Sample ID No. D2-TW-0007107-24092-N). EPA was notified of the detection on 02 June 2024, when the Navy received preliminary results from the analytical laboratory. After the preliminary results were received, the Navy initiated a Tier 1 investigation. The Tier 1 evaluation for 132 19th Street is presented in Appendix C. Investigation into this detection determined it was likely due to contamination with a lubricating oil that may have been introduced at the time of sample collection or in the laboratory but is not related to JP-5 or other fuel-related analytes. All faucets at the residence were flushed and the resident was provided bottled water until the results of the re-sampling were received. The residence was resampled on 03 June 2024. The results of the resampling were non-detect for TPHs. On 03 June 2024, the Navy voluntarily conducted a Tier 2 analysis, and an additional sample was collected from 132 19th Street. Results of the Tier 2 analysis (i.e., PIANO analysis) confirmed the TPH detection at this location was not associated with JP-5 or other fuel-related analytes. Results of the Tier 2 analysis evaluation are documented in a separate technical memorandum.

3. Hydrant 365 (Zone D2)

- TPH-G was detected at 137 ppb in the sample collected from Hydrant 365 (Zone D2) on 29 May 2024 (Field Sample ID No. D2-DL-0017717-24122-N). EPA was notified of the detection on 02 June 2024, when the Navy received preliminary results from the analytical laboratory. After the preliminary results were received, the Navy initiated a Tier 1 investigation. The Tier 1 evaluation for Hydrant 365 is presented in Appendix C. Investigation into this detection determined it was likely associated with field contamination. Results of the Tier 1 analysis confirmed the detection of isopropyl alcohol, which was the disinfectant used prior to sampling. However, Hydrant 365 was resampled and two additional hydrants (one upgradient and downgradient of the original hydrant) were sampled on 27 June 2024. The results of the resampling and additional samples were non-detect for TPH. The results of the Tier 1 analysis and additional sampling confirmed the TPH detection at this location was not associated with JP-5 or other fuel-related analytes.

4. Hydrant 79 (Zone D2)

- TPH-O and TPH-D were detected at 92.4 ppb and 1,460 ppb, respectively, in the samples collected from Hydrant 79 (Zone D2) on 30 May 2024 (Field Sample ID No. D2-DL-0017712-24122-N). EPA was notified of the detection on 02 June 2024, when the Navy received preliminary results from the analytical laboratory. After the preliminary results were received, the Navy initiated a Tier 1 investigation. The Tier 1 evaluation for Hydrant 79 is presented in Appendix C. Investigation into this detection confirmed it was associated with food-grade lubricants used for servicing hydrants and not associated with JP-5 or other fuel-related analytes in the System. However, Hydrant 79 was resampled and two additional hydrants (one upgradient and downgradient of the original hydrant) were sampled on 27 June 2024. The results of the resampling and additional samples were non-detect for TPH. The results of the Tier 1 analysis and additional sampling confirmed the TPH detection at this location was not associated with JP-5 or other fuel-related analytes.

TPH results for the first quarter of EDWM are shown in Figure 3.



Figure 3. First Quarter (April – June 2024) EDWM TPH Sampling Results

All four TPH detections occurred in Zone D2. These samples were not co-located and were surrounded by locations with no TPH detections. These detects are unlikely to be associated



with field contamination because these samples were collected on different dates (i.e., 15 April, 28 May, 30 May, and 2 June 2024). TPHs were not detected in other drinking water samples collected at similar dates and times as the four detections in Zone D2.

Three of the four detections occurred at hydrants, where common food-grade lubricants are used as part of normal servicing and maintenance. These lubricants, which are used throughout the JBPHH System, contain mineral oils that will be identified as TPH-O by the lab (see Appendix B for the SDS for the food-grade lubricants used throughout the JBPHH System). Further investigation into these detections concluded they are not associated with JP-5 or other fuel-related analytes in the System and are location-specific incidents.

3.3 Other Analyte Detections

Six additional analytes were detected in drinking water samples collected during the first quarter of EDWM: copper, lead, mercury, benzo(a)pyrene, 1,2-dibromoethane (EDB), and total trihalomethanes (TTHM). Results for these chemicals were compared to MCLs/ALs. All results were below their respective MCL/AL.

Three of the analytes (i.e., benzo[a]pyrene, lead, and EDB) were evaluated in further detail due to their potential association with fuels, and the results are summarized below.

Benzo(a)pyrene

Benzo(a)pyrene was detected in 5.8% (i.e., 95 of 1,641) of the drinking water samples collected during the first quarter of EDWM. All detections were less than the MCL of 0.2 ppb. Detected concentrations range from 0.011 to 0.036 ppb with an average detected concentration of 0.018 ppb. The majority of the detections (i.e., 79% [75 of 95]) were less than the method reporting limit (MRL) of 0.020 ppb. Twenty-one percent (i.e., 21% [20 of 95]) of the detections were greater than the MRL.⁷ Benzo(a)pyrene results for the first quarter of EDWM are summarized in table presented below and are shown in Figure 4.

Table 14. Summary of Benzo(a)pyrene Results by Location Type (April – June 2024) of EDWM

Sample Location Type	Contaminant	Units	Screening Level	Basis for Screening Level	EDWM Summary – First Quarter	
					No. of Detects out of Samples	Minimum – Maximum (Average) ¹
Residences	Benzo(a)pyrene	ppb	0.2	MCL	61/926	0.011 – 0.034 (0.017)
Schools					3/172	0.013 – 0.026 (0.021)
Child Development Centers					1/126	0.019 – 0.019 (0.019)
Non-Residences					5/41	0.018 – 0.036 (0.025)
Hydrants					25/376	0.013 – 0.027 (0.017)
Waiawa Shaft – Post Chlorination					0/3	Not Detected

Notes:

¹These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

⁷ This is similar to the trend observed during LTM where benzo(a)pyrene was detected in 234 of the 8,637 (2.7%) drinking water samples collected. During LTM, 137 of the 234 detections (59%) were less than the MRL and 97 of the 235 (41%) were greater than the MRL. LTM period summary reports are available for review at jbphh-safewaters.org.

Benzo(a)pyrene is not associated with JP-5; however, it may be associated with heavier petroleum fuels/lubricants. Benzo(a)pyrene is one of many polycyclic aromatic hydrocarbons (PAHs). PAHs are commonly detected because they are often associated with many human activities and natural processes. Benzo(a)pyrene, and other PAHs, are formed during the burning of fossil fuels, motor vehicle exhaust, industrial processes, or the burning of organic matter. Benzo(a)pyrene is produced by forest fires and volcanic activity, which can impact groundwater used as a source of drinking water. The most common cause for benzo(a)pyrene in drinking water is from asphalt and coal tar linings in pipes and storage tanks leaching into the distribution system.



Figure 4. First Quarter (April – June 2024) EDWM Benzo(a)pyrene Sampling Results

The detections were observed throughout the System and are not limited to one Zone or general area. Detections of benzo(a)pyrene are surrounded by non-detects and do not indicate there is a system-wide impact or source. TPHs were not detected at all locations where benzo(a)pyrene was detected, with one exception in Zone D2 (i.e., Hydrant 236; Field Sample ID No. D2-DL-0017711- 24092-N). A Tier 2 analysis was performed at this location and the results of that evaluation concluded JP-5 or other fuel-related analytes were not impacting that location (see Section 3.2 for more information). The Navy will continue to monitor benzo(a)pyrene concentrations in the System and investigate the cause or source of these detections. The results of this investigation will be documented in a technical memorandum and submitted to EPA/State of Hawaii, Department of Health (DOH) for review and discussion.



Lead

Lead was detected in 57% (i.e., 716 of 1,265) of the drinking water samples collected during the first quarter of EDWM.⁸ All detections were less than the AL of 15 ppb. Detected concentrations range from 0.13 to 12 ppb, with an average detected concentration of 0.38 ppb. The majority of the detections (i.e., 86% [617 of 716]) were less than the MRL (i.e., 0.50 ppb). Fourteen percent (i.e., 14% [99 of 716]) of the detections were greater than the MRL.⁹ Lead results for the first quarter of EDWM are summarized on the table below and are shown in Figure 5.

Table 15. Summary of Lead Results by Location Type (April – June 2024) of EDWM

Sample Location Type	Contaminant	Units	Screening Level	Basis for Screening Level	EDWM Summary – First Quarter	
					No. of Detects out of Samples	Minimum – Maximum (Average) ¹
Residences	Lead	ppb	15	AL	531/926	0.13 – 8.2 (0.36)
Schools					103/172	0.13 – 12 (0.35)
Child Development Centers					60/126	0.13 – 7.7 (0.52)
Non-Residences					22/41	0.13 – 0.60 (0.32)
Hydrants					n/a	n/a
Waiawa Shaft – Post Chlorination					1/1	0.16

Notes:

¹These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

n/a = Not analyzed.

⁸ In accordance with the EDWM Plan, hydrants are not analyzed for lead.

⁹ This is similar to the trend observed during LTM where lead was detected in 5,689 of the 8,132 (70%) drinking water samples collected. During LTM, 4,363 of the 5,689 detections (77%) were less than the MRL and 1,326 of the 5,689 detections (23%) were greater than the MRL. LTM period summary reports are available for review at jbphh-safewaters.org.

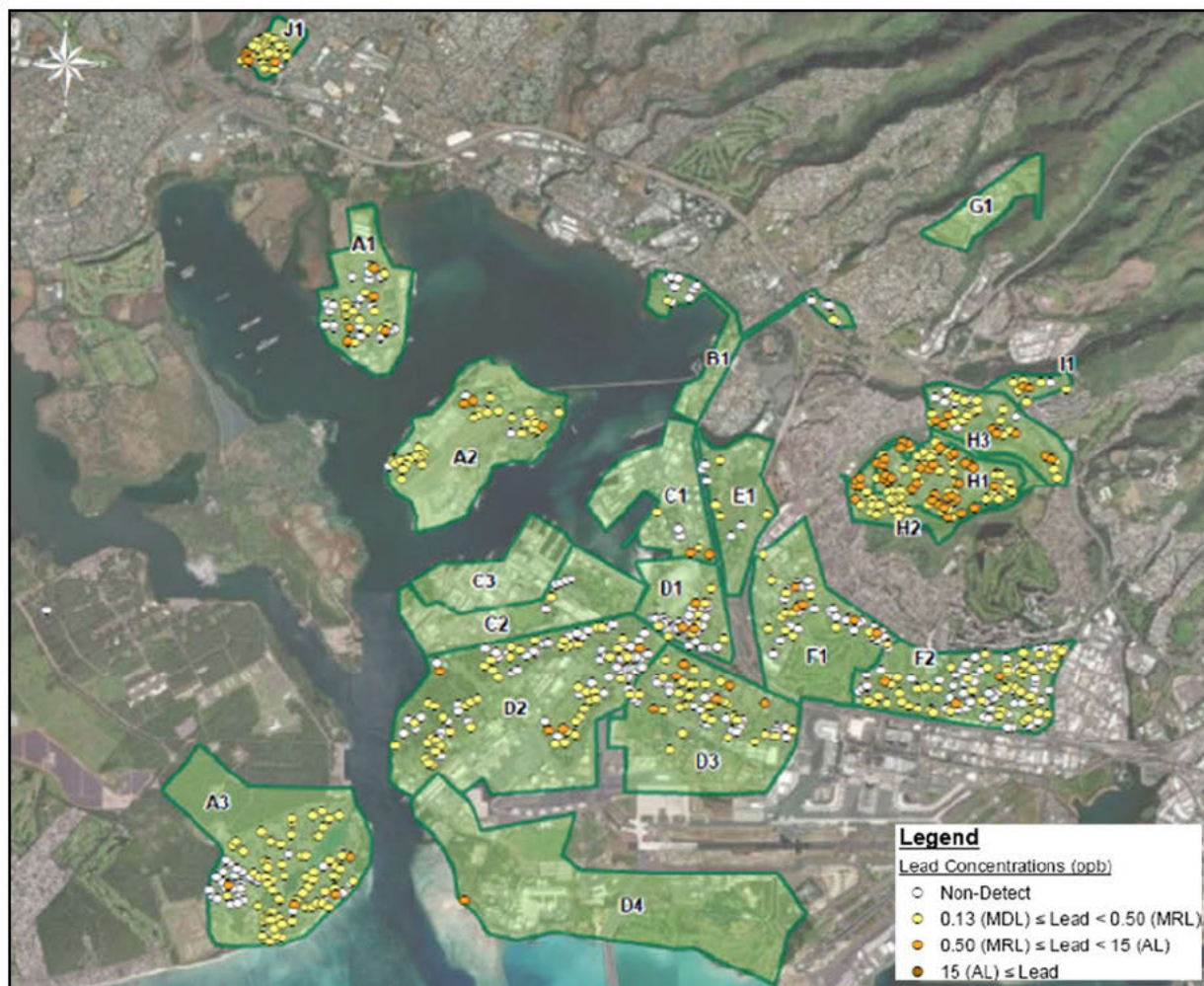


Figure 5. First Quarter (April – June 2024) EDWM Lead Sampling Results

Lead was not detected in a pre-chlorination sample collected from Waiawa Shaft (source water) on 03 June 2024. Lead was detected at 0.16 ppb in a post-chlorination sample collected from Waiawa Shaft (source water) on 03 June 2024. Lead was not detected in the samples collected in 2023 as part of the JBPHH compliance monitoring program.¹⁰ The detections were observed throughout the System and are not limited to one Zone or general area. Lead in the System is likely associated with premise plumbing.

The Navy administers a robust and layered monitoring approach for lead which includes EDWM, sampling in accordance with the Lead and Copper Rule, and sampling in accordance with the Lead in Priority Area Rule. The System has been and remains in full compliance with State and Federal standards. The Navy will continue to monitor lead concentrations in the System and is currently investigating the cause or source of these detections. This investigation includes: (1) reviewing construction information to determine the piping material used in residences and determine if metal piping (e.g., cast iron pipes) with lead solder was used, (2) conducting a spatial analysis to determine if there are spatial patterns to lead concentrations (i.e., if lead is detected more frequently or at higher concentrations in certain zones), (3)

¹⁰ See the Consumer Confidence Reports, available at:
<https://cnrh.cnic.navy.mil/Operations-and-Management/Environmental/Water-Quality-Information/>.



conducting a temporal analysis to determine if there are patterns in the timing of lead detections (i.e., is lead detected more frequently or at higher concentration during certain weeks or months), and (4) comparing lead to water quality information (e.g., free chlorine concentrations, pH) to determine if there is a correlation. The results of this investigation will be documented in a technical memorandum and submitted to EPA and DOH for review and discussion.

Lead is not associated with JP-5. It was historically used in leaded gasoline, but this was banned for use in on-road vehicles in the United States in 1996. The most common sources of lead in drinking water are pipes (e.g., cast iron or other metal pipes with lead solder), faucets, and fixtures in the home. Lead can enter drinking water when plumbing materials and fixtures that contain lead start to corrode. Lead can also be naturally occurring leading to low level concentrations of lead in drinking water. Naturally occurring lead is not considered a primary source of contamination in drinking water.

1,2-Dibromoethane (EDB)

EDB was detected in 0.77% (i.e., 1 of the 130) drinking water samples collected during the first quarter of EDWM. All detections were less than the MCL of 0.05 ppb. EDB was detected at 0.0085 ppb in the sample collected from Hydrant 37A (Field Sample ID No. F1-DL-0017724-24153-N) which is less than the MRL of 0.022 ppb and less than the MCL of 0.050 ppb. EDB results for the first quarter of EDWM are summarized on the table below and are shown in Figure 6.

Table 16. Summary of 1,2-Dibromoethane (EDB) Results by Location Type (April – June 2024) of EDWM

Sample Location Type	Contaminant	Units	Screening Level	Basis for Screening Level	EDWM Summary – First Quarter	
					No. of Detects out of Samples	Minimum – Maximum (Average) ¹
Residences	1,2-Dibromoethane (EDB)	ppb	0.05	MCL	n/a	n/a
Schools					n/a	n/a
Child Development Centers					n/a	n/a
Non-Residences					n/a	n/a
Hydrants					1/121	0.0085
Waiawa Shaft – Post Chlorination					0/2	Not Detected

Notes:

¹These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

n/a = Not analyzed.

The presence (i.e., detection) of EDB does not necessarily mean fuel is present in water, but EDB is associated with other petroleum compounds utilized in fuels. EDB is not associated with JP-5 and is not an indicator of JP-5 fuel.¹¹ EDB was not detected in a pre-chlorination sample collected from Waiawa Shaft (source water) on 03 June 2024. EDB was not detected in the samples collected in 2023 as part of the JBPHH compliance monitoring program.¹² Historically, EDB has been utilized in leaded gasoline and as a pesticide prior to being banned due to its toxicity.

¹¹ Sixteen JP-5 fuel product samples were collected from Red Hill tanks in July 2023 and analyzed to determine the chemical makeup of JP-5 fuel that impacted the System. EDB was not detected in any of those samples (see Appendix B of the EDWM Plan).

¹² See the Consumer Confidence Reports, available at:

<https://cnrh.cnrc.navy.mil/Operations-and-Management/Environmental/Water-Quality-Information/>.



Figure 6. First Quarter (April – June 2024) EDWM 1,2-Dibromoethane Sampling Results



Section 4. Quality Assurance/Quality Control Sampling

This section summarizes the results of quality assurance/quality control (QA/QC) samples collected by the Navy and EPA to assess the results of drinking water samples. These samples are important for ensuring the data reported by the laboratory is accurate and can be used to evaluate the overall safety of drinking water supplied by the System.

4.1 Monthly Performance Evaluation Monitoring

In accordance with the EDWM Plan, monthly performance evaluation (PE) samples were collected. The PE samples are samples that were spiked with a known concentration of JP-5 (i.e., 80 ppb and 266 ppb) and submitted to the laboratory for analysis. These are “blind” samples (i.e., the laboratory does not know that they were spiked with JP-5) and are analyzed as normal samples. The results of the monthly PE samples collected during the first quarter of EDWM are summarized in the following table.

Table 17. Summary of Monthly PE Monitoring Sample Results (April – June 2024)

Sample ID	Sample Date	Spike Concentration (ppb)	Laboratory Result (ppb)	Percent Difference (%)
I1-TW-0016032-24122-N-1	5/29/2024	80	90.5	12.3
I1-TW-0016032-24122-N-2	5/29/2024	266	226	16.3
I1-TW-0016032-24122-N-1-R1	6/11/2024	266	193	31.9
I1-TW-0016032-24122-N-2-R1	6/11/2024	80	68.8	15.1

The PE sample results indicate the lab is consistently obtaining good recoveries and the EDWM analytical results are of good quality. The Navy will continue to collect monthly PE samples as part of EDWM.

4.2 Matrix Spike/Matrix Spike Duplicates

In accordance with the EDWM Plan, matrix spike (MS) samples were analyzed at an increased frequency compared to LTM. A MS sample is obtained when the sampling crew collects extra volume of drinking water sample in the field and sends it to the lab. The lab then spikes the sample with a known quantity of TPH and analyzes the sample along with the other samples in the batch. The lab then compares the results of the MS sample to the known quantity they added to the sample. MS samples were spiked with JP-5 near the MRL of 80 ppb and also at 266 ppb and analyzed for TPH using EPA Method 8015. A total of 85 MS samples were collected and analyzed for TPH between 04 April 2024 and 28 June 2024. The MS results are presented in Appendix D. The MS sample results indicate the lab is consistently obtaining good recoveries and the EDWM analytical results are of good quality. The Navy will continue to collect MS samples as part of EDWM.

4.3 EPA Co-Sampling

In June 2024, EPA began analyzing co-samples for TPHs. The purpose of the co-sampling is to serve as an independent QA/QC measure for assessing the Navy's drinking water results. The co-sampling (referred to as split sampling in the EDWM Plan) involves the duplicate collection of a drinking water sample at the same time, from the same location, but sending the samples to two different laboratories (i.e., the Navy's contracted laboratory and EPA's laboratory) for analysis. The results are compared to determine if additional investigation or action is warranted. The Navy's results from the EPA co-sampling event conducted 04 June – 06 June 2024 during an EPA inspection of the System are summarized in the table below. At the time of this report, EPA's results have not been published; therefore, a comparison could not be conducted at this time. Once EPA's results are finalized and available to the public, the Navy will



compare the results to ensure the results are consistent between the two labs or determine if additional investigation/action is warranted.

Table 18. Summary of Navy Sample Results from EPA Co-Sampling Events (April – June 2024)

Zone/Location	Navy Sample ID	Sample Date	TPH Result (ppb)
AMR (Post-Chlorination)	SHAFT-HW-0018362-24153-N	06/03/2024	Non-Detect
D2 (Residence)	D2-TW-0008108-24092-N	06/06/2024	Non-Detect
D2 (Residence)	D2-TW-0007565-24092-N	06/06/2024	Non-Detect
D2 (Residence)	D2-TW-0008053-24092-N	06/05/2024	Non-Detect
H1 (Residence)	H1-TW-0013012-24092-A	06/05/2024	Non-Detect
Red Hill Shaft (Pre-Chlorination)	SHAFT-HW-0017990-24153-N	06/04/2024	Non-Detect
Aiea-Halawa Shaft (Pre-Chlorination)	SHAFT-HW-0018363-24153-N	06/04/2024	Non-Detect

4.4 Non-Source Water Shaft Samples

In accordance with the EDWM plan, the NAH Shaft and RH Shaft are sampled quarterly for general water quality parameters; however, during the first quarter of EDWM (April – June 2024), the Navy voluntarily collected drinking water samples from the NAH and RH shafts and analyzed them for TPH, select fuel indicator compounds, and metals. **The NAH and RH Shafts are offline and do not provide drinking water to the System.**

TPH and the fuel indicator compounds were non-detect in the NAH and RH Shafts. Copper and lead were the only chemicals detected in the NAH Shaft, and all results were below the Action Levels of 1,300 ppb and 15 ppb, respectively. None of the chemicals analyzed were detected in the RH Shaft. A summary of the results for the NAH and RH Shafts are summarized in the tables below.

Table 19. Summary of Navy Aiea-Halawa Shaft (Pre-Chlorination) Results (April – June 2024)

Table 10: Summary of Water Quality Data and EDWM Summary (First Quarter 2021)					
Contaminant	Units	Screening Level	Basis for Screening Level	EDWM Summary – First Quarter	
				No. of Detects out of Samples	Minimum – Maximum (Average)
Contaminants of Concern					
Benzene	ppb	5	MCL	0/1	--
Ethylbenzene	ppb	700	MCL	0/1	--
Toluene	ppb	1,000	MCL	0/1	--
Xylenes (Total)	ppb	10,000	MCL	0/1	--
1-Methylnaphthalene	ppb	-- ¹	--	0/1	--
2-Methylnaphthalene	ppb	-- ¹	--	0/1	--
Naphthalene	ppb	-- ¹	--	0/1	--
Total Petroleum Hydrocarbon (TPH)	ppb	-- ¹	--	0/1	--
Metals					
Copper	ppb	1,300	AL	1/1	124 – 124 (124)
Lead	ppb	15	AL	1/1	0.33 – 0.33 (0.33)

Notes:

¹ No established MCL from EPA

**Table 20. Summary of Red Hill Shaft (Pre-Chlorination) Results (April – June 2024)**

				EDWM Summary – First Quarter	
Contaminant	Units	Screening Level	Basis for Screening Level	No. of Detects out of Samples	Minimum – Maximum (Average)
Contaminants of Concern					
Benzene	ppb	5	MCL	0/1	--
Ethylbenzene	ppb	700	MCL	0/1	--
Toluene	ppb	1,000	MCL	0/1	--
Xylenes (Total)	ppb	10,000	MCL	0/1	--
1-Methylnaphthalene	ppb	-- ¹	--	0/1	--
2-Methylnaphthalene	ppb	-- ¹	--	0/1	--
Naphthalene	ppb	-- ¹	--	0/1	--
Total Petroleum Hydrocarbon (TPH)	ppb	-- ¹	--	0/1	--

Notes:

¹ No established MCL from EPA



Section 5. Water Quality Action Team

In addition to the EDWM Plan, the Navy has established the WQAT (predated by the Rapid Response Team) to address consumer water quality concerns.

The WQAT works independently of the EDWM Plan to collect samples at locations with consumer concerns. The WQAT is one piece of the overall effort taken by the Navy to continue to demonstrate that the System is no longer impacted by the November 2021 Red Hill release and that water provided by the System is safe for consumption. Although the WQAT is a separate program and is not a requirement under the EDWM Plan, the results of the WQAT drinking water samples are included in this report to support the evaluation of drinking water in the System.

System users are encouraged to contact the WQAT Call Center and report any water quality and/or health-related concerns associated with their tap water. The WQAT will then work with the consumer to launch a drinking water investigation and determine if JP-5 or other fuel-related analytes are impacting the System, identify any water quality concerns with the premise, and communicate the results to the resident/occupant. This section summarizes the results of the WQAT samples collected by the Navy to address consumer water quality concerns.

5.1 Summary of WQAT Concerns

During the first quarter of EDWM, a total of 40 concerns were reported to the WQAT. Water quality concerns were reported from 36 residences and four non-residences. The total number of these concerns per month varied, with 13 concerns reported in April, 11 reported in June, and 16 reported in July. Additionally, water quality concerns were reported in 8 Zones on the System and one location outside of the System. Figure 7 below summarizes the total number of investigations by the WQAT between April 2024 and June 2024. Additional information is also available on the <https://jbphh-safewaters.org> under the "Concern Log Archive".

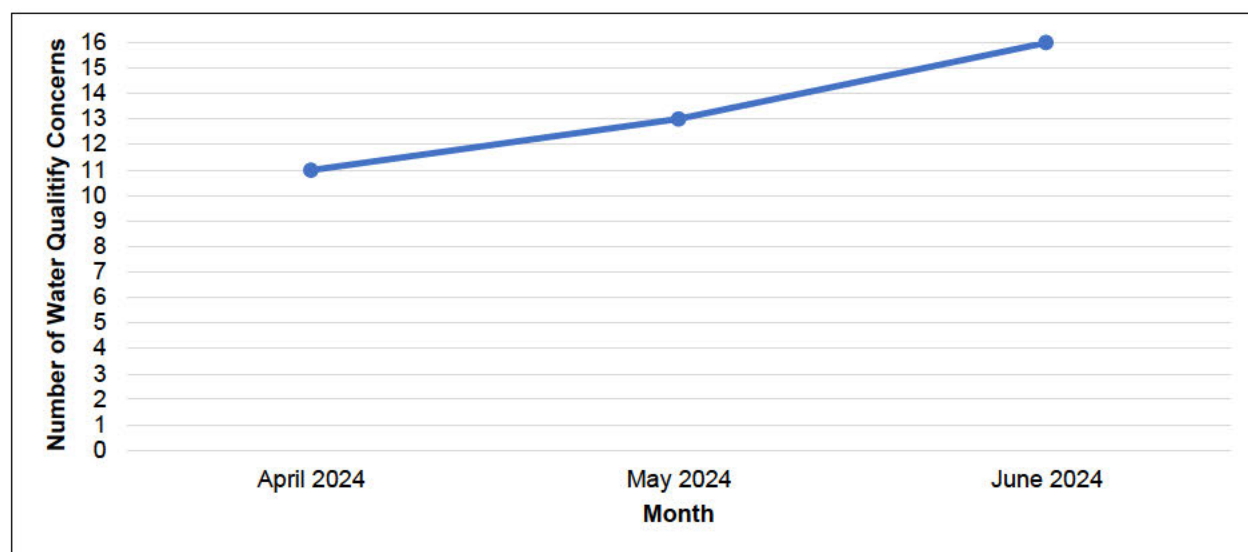


Figure 7. Total Water Quality Concerns (April – June 2024)

Table 21 below summarizes the total number of concerns, by Zone, between April 2024 and June 2024.

**Table 21. Summary of WQAT Concerns by Zone (April – June 2024)**

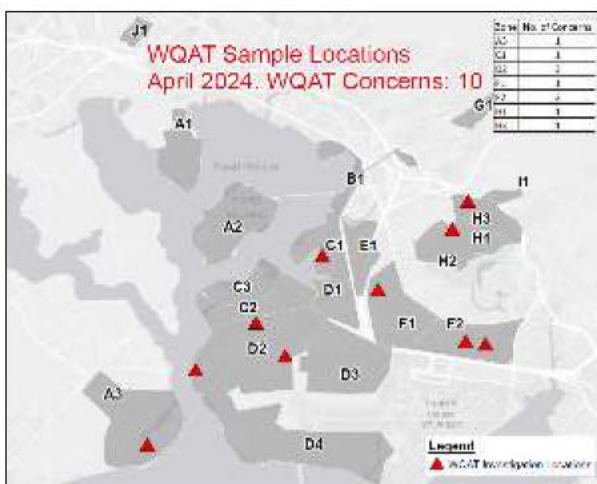
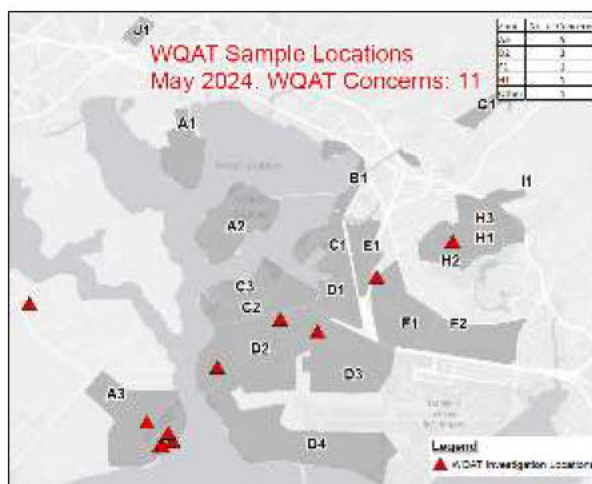
Zone ¹	Number of Concerns (April 2024)	Number of Concerns (May 2024)	Number of Concerns (June 2024)	Total Concerns
A2	0	0	1	1
A3	3	4	10	17
C1	1	0	0	1
D2	4	2	3	9
F1	1	2	1	4
F2	2	1	0	3
H1	1	1	0	2
H3	1	0	1	2
Other ²	0	1	0	1
Total	13	11	16	40

Notes:

¹ Zones not listed in this table did not have any concerns that were investigated by the WQAT during the first quarter (i.e., April – June 2024) of EDWM.

² One concern was from West Loch, located outside of the twenty Zones established for the JBPHH System.

During April 2024, 11 residences and two non-residences from seven Zones (i.e., A3, C1, D2, F1, F2, H1, and H3) reported water quality concerns to the WQAT. In May 2024, nine residences and one non-residence from four Zones (i.e., A3, D2, F1, and H1) on the System and one non-residence outside of the System (from West Loch) reported water quality concerns to the WQAT. In June 2024, 16 residences from five Zones (i.e., A2, A3, F1, F2, and H3) reported water quality concerns to the WQAT. In the first quarter, June experienced the highest volume of concerns, followed by May, and then April, which experienced the lowest volume of concerns. Locations where WQAT concerns were reported to the WQAT during the first quarter of EDWM are shown in Figures 8 through 10.

**Figure 8. April 2024 WQAT Sample Locations****Figure 9. May 2024 WQAT Sample Locations**

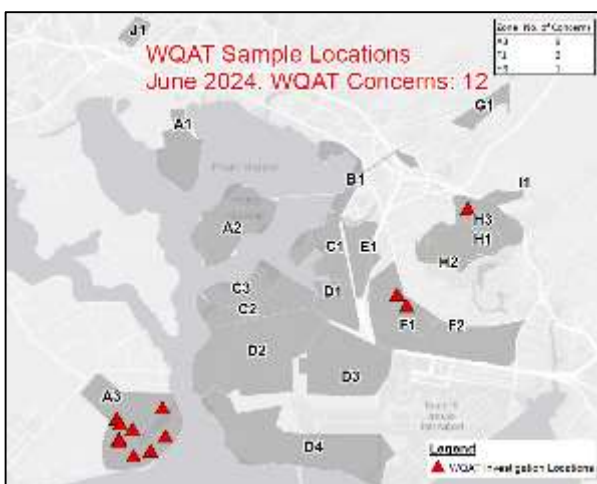


Figure 10. June 2024 WQAT Sample Locations

Other factors, such as public events and media coverage, also impact the number of concerns received. It is important to acknowledge that ongoing events, such as new residents, the finalization of the Administrative Consent Order (ACO), establishment of the Community Representative Initiative (CRI), door-to-door surveys conducted by EPA and Agency for Toxic Substances and Disease Registry (ATSDR), the defueling of the Red Hill Bulk Storage Facility, a lawsuit brought against the US government, and media coverage can raise public awareness and amplify the concerns regarding water quality and safety of their drinking water. The Navy takes every call and water quality concern received seriously and is committed to ensuring drinking water provided by the System is no longer impacted by JP-5 fuel.

5.2 Summary of Water Quality Action Team Investigations

WQAT investigations (e.g., home inspection, drinking water sampling) were performed at 39 of the 40 locations where a water quality concern was reported to the WQAT. Sampling was declined by one resident (Zone F2) in May 2024. In some cases, the WQAT sample was performed in a different quarter of EDWM due to scheduling conflicts with the resident. For example, a resident may have called into the WQAT in June 2024 (Q1) to report an issue, but the resident was not available to have their residence sampled until July 2024 (Q2). In that instance, the results of the WQAT investigation (e.g., home inspection, drinking water sampling) will be reported in the second quarterly report. This section summarizes the results of WQAT investigations performed during the first quarter of EDWM (i.e., results of investigations and sampling performed between April 2024 and June 2024).

Thirty-three drinking water samples were collected by the WQAT during the first quarter of EDWM. All drinking water samples were collected and analyzed in accordance with the EDWM Plan. In addition to collecting a drinking water sample in accordance with the EDWM Plan, the WQAT:

- Conducts a site inspection for all locations that call the WQAT and request to be sampled;
- Measures water quality parameters, including pH, conductivity, turbidity, free chlorine, and temperature, in the field (these measurements are collected from cold and hot water);
- Investigates tap water at each location to determine if a sheen, odor, or other visible indicators of fuel are present;
- Conducts rapid TPH screening and collects a drinking water sample to be collected in accordance with the WQAT protocols and sends the sample to the lab for analysis;



- Offers an alternative water supply (e.g., bottled water); and
- Follows up with the resident/facility regarding the results of the site inspection and sample results.

All observations and results of the WQAT investigation are documented in a technical memorandum (see Appendix E). This information is important for evaluating overall water quality in the System and ensuring the System is not impacted by JP-5 or other fuel-related analytes. A summary of the WQAT's investigation conducted during the first quarter of EDWM is provided in the following table.

Table 22. Summary of WQAT Observations and TPH Results (April – June 2024)

Zone	Sample ID	Fuel Sheen Observed by WQAT?	Fuel Odor Observed by WQAT?	Petroleum Impacts Observed by WQAT?	TPH Result (ppb)
A3	A3-TW-0012483-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016093-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016259-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016297-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016302-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016590-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016657-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016711-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016848-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0016958-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0017013-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0017016-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0017107-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0017251-24092-N-WQI	No	No	No	Non-Detect
A3	A3-TW-0017466-24092-N-WQI	No	No	No	Non-Detect
C1	C1-TW-0014657-24092-N-WQI	No	No	No	Non-Detect
D2	D2-TW-0007007-24092-N-WQI	No	No	No	Non-Detect
D2	D2-TW-0007196-24092-N-WQI	No	No	No	Non-Detect
D2	D2-TW-0007506-24092-N-WQI	No	No	No	Non-Detect
D2	D2-TW-0007528-24092-N-WQI	No	No	No	Non-Detect
D2	D2-TW-0008053-24092-N-WQI	No	No	No	Non-Detect
D2	D2-TW-0008067-24092-N-WQI	No	No	No	Non-Detect
F1	F1-TW-0008603-24092-N-WQI	No	No	No	Non-Detect
F1	F1-TW-0008732-24092-N-WQI	No	No	No	Non-Detect
F1	F1-TW-0015326-24092-N-WQI	No	No	No	Non-Detect
F1	F1-TW-0015373-24092-N-WQI	No	No	No	Non-Detect
F2	F2-TW-0009889-24092-N-WQI	No	No	No	Non-Detect
F2	F2-TW-0011045-24092-N-WQI	No	No	No	Non-Detect
H1	H1-TW-0012930-24092-A-WQI	No	No	No	Non-Detect
H1	H1-TW-0012981-24092-A-WQI	No	No	No	Non-Detect
H3	H3-TW-0013699-24092-A-WQI	No	No	No	Non-Detect
H3	H3-TW-0013888-24092-A-WQI	No	No	No	Non-Detect
WL	WL-TW-0017862-24092-N-WQI	No	No	No	Non-Detect

Total TPHs have not been detected in any of the drinking water samples collected by the WQAT during the first quarter of EDWM. Additionally, the WQAT has not observed any fuel-related



sheen, odor, or other JP-5 or other fuel-related analytes impacts to drinking water from the 33 samples collected between April and June 2024.



Section 6. Conclusions

The results of the first quarter of EDWM demonstrate that JP-5 or other fuel-related analytes are not impacting the System. This is supported by the following:

- TPHs were not detected in the source water (i.e., Waiawa Shaft) in April, May, or June 2024.
- TPHs were detected in less than 1% (i.e., four out of 1,641) of drinking water samples collected from 16 Zones throughout the System.
 - TPHs were detected in three hydrants in Zone D2. The TPH detections were associated with food-grade lubricants (e.g., white mineral oil) and isopropyl alcohol used to service and clean the hydrants.
 - TPHs were detected in one residence in Zone D2. This TPH detection is likely associated with a premise plumbing issue and not indicative of a System-wide impact. The residence was re-sampled and additional samples were collected from nearby locations. All additional results were non detections.
- Six additional analytes were detected in drinking water samples collected during the first quarter of EDWM: copper, lead, mercury, benzo(a)pyrene, 1,2-dibromoethane (EDB), and total trihalomethanes (TTHM). Results for these chemicals were compared to MCLs/ALs. All results were below their respective MCL/AL. Three of the analytes (i.e., benzo[a]pyrene, lead, and EDB) were evaluated in further detail due to their potential association with fuels and the results are summarized below.
 - Benzo(a)pyrene was detected in 5.8% (i.e., 95 of 1,641) drinking water samples collected during the first quarter of EDWM. All detections were well below the MCL of 0.2 ppb. Detected concentrations ranged from 0.011 to 0.036 ppb with an average detected concentration of 0.018 ppb. The detections were observed throughout the System and are not limited to one Zone or general area. Detections of benzo(a)pyrene are surrounded by non-detects and do not indicate there is a system-wide impact or source.
 - Lead was detected in 57% (i.e., 716 of 1,265) drinking water samples collected during the first quarter of EDWM. All detections were less than the AL of 15 ppb. Detected concentrations ranged from 0.13 to 12 ppb, with an average detected concentration of 0.38 ppb. The detections were observed throughout the System and are not limited to one Zone or general area. Lead in the System is likely associated with premise plumbing.
 - 1,2-Dibromoethane (EDB) was detected in 0.77% (i.e., 1 of 130) drinking water samples collected during the first quarter of EDWM. The detected concentration was 0.0085 ppb which is less than the MCL of 0.050 ppb. The presence (i.e., detection) of EDB does not necessarily mean fuel is present in water, but EDB is associated with other petroleum compounds utilized in fuels. EDB is not associated with JP-5 and is not an indicator of JP-5 fuel. EDB was not detected in a pre-chlorination sample collected from Waiawa Shaft (source water) on 03 June 2024. EDB was not detected in the samples collected in 2023 as part of the JBPHH compliance monitoring program. Historically, EDB has been utilized in leaded gasoline and as a pesticide prior to being banned due to its toxicity.

After the Navy voluntarily initiated EDWM in April 2024, the EDWM Plan has gone through various revisions. The EDWM Plan is a “living” document which means it will be updated and



amended based on new information or field conditions. In June 2024, the Navy revised the EDWM analyte list (Table 2-1 of the EDWM Plan) to include 16 additional fuel indicator compounds. As a result, samples collected before June 2024 were not analyzed for these chemicals. Additionally, the Navy, with input from EPA, revised the four COAs in Section 5 of the EDWM Plan to ensure proper investigation and action is taken based on EDWM results. For example, COA 3 was revised to include additional investigation for all locations where JP-5 or other fuel-related indicator compounds were detected above the MRL. These revisions do not impact the conclusions of this report. The results of the first quarter of EDWM demonstrate that JP-5 or other fuel-related analytes are not impacting the System. Additional investigations, triggered by the conditions established in Section 5 of the EDWM Plan, will be documented in technical memos (e.g., initial assessments, Tier 1 analysis, etc.). The Navy has voluntarily established a program for conducting a forensics analysis (called Tier 2) at locations where TPH, JP-5, or other fuel-related compounds are detected and the results of the initial assessment and Tier 1 analysis were inconclusive. This Tier 2 analysis is not required under the EDWM Plan, but is another tool the Navy uses, where appropriate, to ensure that drinking water in the System continues to meet all State and Federal standards and is safe for consumption



Table 5. Contaminants Detected in Drinking Water Samples Collected from Residences

Contaminant ¹	Typical Source of Contaminant	Units ²	Screening Level ³	Basis for Screening Level	EDWM Summary – First Quarter		EDWM Summary – Second Quarter		EDWM Summary – Third Quarter		EDWM Summary – Fourth Quarter	
					Apr – Jun 2024		Jul – Sept 2024		Oct – Dec 2024		Jan – Mar 2025	
					No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴
Contaminants of Concern												
Benzene	Discharge from factories; Leaching from gas storage tanks and landfills	ppb	5	MCL	0/926	--	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Ethylbenzene	Discharge from petroleum refineries	ppb	700	MCL	0/926	--						
Toluene	Discharge from petroleum factories	ppb	1,000	MCL	0/926	--						
Xylenes (Total)	Discharge from petroleum factories; Discharge from chemical factories	ppb	10,000	MCL	0/926	--						
1-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also, present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁸	-- ⁸	0/926	--						
2-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also used to make vitamin K; and is present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁸	-- ⁸	0/926	--						
Naphthalene	Naphthalene is found in coal tar or crude oil and is used in the manufacture of plastics, resins, fuels, and dyes, and as a fumigant	ppb	-- ⁸	-- ⁸	0/926	--						
Total Petroleum Hydrocarbons (Total)	TPH is petroleum and can contaminate drinking water through spills and other releases into the environment	ppb	-- ⁵	-- ⁵	1/926	62 – 62 (62)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Total Organic Carbon (TOC)	Naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources	ppb	4,000 ⁶	ISP	6/926	200 – 500 (308)						
Free Chlorine ⁷	Water additive used to control microbes	ppb	4,000	ISP	1,263/1,268	10 – 1,050 (497)						
Metals												
Copper	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	1,300	AL	924/926	0.68 – 244 (25)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	15	AL	531/926	0.13 – 8.2 (0.36)						
Mercury	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	ppb	2	MCL	1/926	0.028						
Volatile Organic Compounds (VOCs)												
Total trihalomethanes (sum of chloroform, bromoform, bromodichloromethane, and di-bromochloromethane)	By-product of drinking water disinfection	ppb	80	MCL	316/926	0.25 – 14 (1.2)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Semi-Volatile Organic Compounds (SVOCs)												
Benzo(a)pyrene	Leaching from linings of water storage tanks and distribution lines	ppb	0.2	MCL	61/926	0.011 – 0.034 (0.017)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			

Notes:

¹ This table focuses on JP-5 or other fuel-related analytes detected in drinking water samples collected during this period from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT. Samples were also tested for water quality parameters (see Table A-1 in Appendix A) which provide additional information for the evaluation of overall water quality in the System. This information is available for review on the Safe Waters Webpage (<https://jbphh-safewaters.org/>).

² All results are reported in parts per billion (ppb). This refers to the amount (or concentration) of a contaminant in the water.

³ Results of the drinking water samples will be compared to EPA's Safe Drinking Water Act (SDWA) maximum contaminant level (MCLs), SDWA action levels (ALs), and DOH incident specific parameters (ISPs) - where indicated.

⁴ These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

⁵ There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH above the MDL will be investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

⁶ Total Organic Carbon (TOC) test results report any constituent containing carbon, many of which are naturally occurring and some of which may be man-made.

⁷ Chlorine is used as an additive to drinking water for disinfection purposes.

⁸ No established MCL from EPA.

Cells highlighted in **green** indicate the water sample results were below their respective MCL, AL, or ISP.

Acronyms and explanation of terms used in this table are presented in Appendix A.



Table 6. Contaminants Detected in Drinking Water Samples Collected from Schools

Contaminant ¹	Typical Source of Contaminant	Units ²	Screening Level ³	Basis for Screening Level	EDWM Summary – First Quarter		EDWM Summary – Second Quarter		EDWM Summary – Third Quarter		EDWM Summary – Fourth Quarter	
					Apr – Jun 2024		Jul – Sept 2024		Oct – Dec 2024		Jan – Mar 2025	
					No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴
Contaminants of Concern												
Benzene	Discharge from factories; Leaching from gas storage tanks and landfills	ppb	5	MCL	0/172	--	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Ethylbenzene	Discharge from petroleum refineries	ppb	700	MCL	0/172	--						
Toluene	Discharge from petroleum factories	ppb	1,000	MCL	0/172	--						
Xylenes (Total)	Discharge from petroleum factories; Discharge from chemical factories	ppb	10,000	MCL	0/172	--						
1-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also, present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁸	-- ⁸	0/172	--						
2-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also used to make vitamin K; and is present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁸	-- ⁸	0/172	--						
Naphthalene	Naphthalene is found in coal tar or crude oil and is used in the manufacture of plastics, resins, fuels, and dyes, and as a fumigant	ppb	-- ⁸	-- ⁸	0/172	--						
Total Petroleum Hydrocarbons (Total)	TPH is petroleum and can contaminate drinking water through spills and other releases into the environment	ppb	-- ⁵	-- ⁵	0/172	--						
Total Organic Carbon (TOC)	Naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources	ppb	4,000 ⁶	ISP	0/172	--						
Free Chlorine ⁷	Water additive used to control microbes	ppb	4,000	ISP	182/187	10 – 910 (348)						
Metals												
Copper	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	1,300	AL	172/172	4.4 – 388 (61)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	15	AL	103/172	0.13 – 12 (0.35)						
Volatile Organic Compounds (VOCs)												
Total trihalomethanes (sum of chloroform, bromoform, bromodichloromethane, and di-bromochloromethane)	By-product of drinking water disinfection	ppb	80	MCL	118/172	0.26 – 22 (2.2)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			
Semi-Volatile Organic Compounds (SVOCs)												
Benzo(a)pyrene	Leaching from linings of water storage tanks and distribution lines	ppb	0.2	MCL	3/172	0.013 – 0.026 (0.021)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.	These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.	These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.			

Notes:

¹ This table focuses on JP-5 or other fuel-related analytes detected in drinking water samples collected during this period from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT. Samples were also tested for water quality parameters (see Table A-1 in Appendix A) which provide additional information for the evaluation of overall water quality in the System. This information is available for review on the Safe Waters Webpage (<https://jbphh-safewaters.org/>).

² All results are reported in parts per billion (ppb). This refers to the amount (or concentration) of a contaminant in the water.

³ Results of the drinking water samples will be compared to EPA's Safe Drinking Water Act (SDWA) maximum contaminant level (MCLs), SDWA action levels (ALs), and DOH incident specific parameters (ISPs) - where indicated.

⁴ These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

⁵ There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH will be investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

⁶ Total Organic Carbon (TOC) test results report any constituent containing carbon, many of which are naturally occurring and some of which may be man-made.

⁷ Chlorine is used as an additive to drinking water for disinfection purposes.

⁸ No established MCL from EPA.

Cells highlighted in **green** indicate the water sample results were below their respective MCL, AL, or ISP.

Acronyms and explanation of terms used in this table are presented in Appendix A.



Table 7. Contaminants Detected in Drinking Water Samples Collected from Child Development Centers

Contaminant ¹	Typical Source of Contaminant	Units ²	Screening Level ³	Basis for Screening Level	EDWM Summary – First Quarter		EDWM Summary – Second Quarter		EDWM Summary – Third Quarter		EDWM Summary – Fourth Quarter	
					Apr – Jun 2024		Jul – Sept 2024		Oct – Dec 2024		Jan – Mar 2025	
					No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴
Contaminants of Concern												
Benzene	Discharge from factories; Leaching from gas storage tanks and landfills	ppb	5	MCL	0/126	--	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Ethylbenzene	Discharge from petroleum refineries	ppb	700	MCL	0/126	--						
Toluene	Discharge from petroleum factories	ppb	1,000	MCL	0/126	--						
Xylenes (Total)	Discharge from petroleum factories; Discharge from chemical factories	ppb	10,000	MCL	0/126	--						
1-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also, present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	__ ⁸	__ ⁸	0/126	--						
2-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also used to make vitamin K; and is present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	__ ⁸	__ ⁸	0/126	--						
Naphthalene	Naphthalene is found in coal tar or crude oil and is used in the manufacture of plastics, resins, fuels, and dyes, and as a fumigant	ppb	__ ⁸	__ ⁸	0/126	--						
Total Petroleum Hydrocarbons (Total)	TPH is petroleum and can contaminate drinking water through spills and other releases into the environment	ppb	__ ⁵	__ ⁵	0/126	--						
Total Organic Carbon (TOC)	Naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources	ppb	4,000 ⁶	ISP	0/126	--						
Free Chlorine ⁷	Water additive used to control microbes	ppb	4,000	ISP	150/150	40 – 950 (455)						
Metals												
Copper	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	1,300	AL	126/126	5.2 – 228 (53)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	15	AL	60/126	0.13 – 7.7 (0.52)						
Mercury	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	ppb	2	MCL	2/126	0.059 – 0.075 (0.067)						
Volatile Organic Compounds (VOCs)												
Total trihalomethanes (sum of chloroform, bromoform, bromodichloromethane, and di-bromochloromethane)	By-product of drinking water disinfection	ppb	80	MCL	55/126	0.25 – 4.8 (1.3)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Semi-Volatile Organic Compounds (SVOCs)												
Benzo(a)pyrene	Leaching from linings of water storage tanks and distribution lines	ppb	0.2	MCL	1/126	0.019	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	

Notes:

¹ This table focuses on JP-5 or other fuel-related analytes detected in drinking water samples collected during this period from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT. Samples were also tested for water quality parameters (see Table A-1 in Appendix A) which provide additional information for the evaluation of overall water quality in the System. This information is available for review on the Safe Waters Webpage (<https://jbphh-safewaters.org/>).

² All results are reported in parts per billion (ppb). This refers to the amount (or concentration) of a contaminant in the water.

³ Results of the drinking water samples will be compared to EPA's Safe Drinking Water Act (SDWA) maximum contaminant level (MCLs), SDWA action levels (ALs), and DOH incident specific parameters (ISPs) - where indicated.

⁴ These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

⁵ There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH will be investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

⁶ Total Organic Carbon (TOC) test results report any constituent containing carbon, many of which are naturally occurring and some of which may be man-made.

⁷ Chlorine is used as an additive to drinking water for disinfection purposes.

⁸ No established MCL from EPA.

Cells highlighted in **green** indicate the water sample results were below their respective MCL, AL, or ISP.

Acronyms and explanation of terms used in this table are presented in Appendix A.



Table 8. Contaminants Detected in Drinking Water Samples Collected from Non-Residences

Contaminant ¹	Typical Source of Contaminant	Units ²	Screening Level ³	Basis for Screening Level	EDWM Summary – First Quarter		EDWM Summary – Second Quarter		EDWM Summary – Third Quarter		EDWM Summary – Fourth Quarter	
					Apr – Jun 2024		Jul – Sept 2024		Oct – Dec 2024		Jan – Mar 2025	
					No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴
Contaminants of Concern												
Benzene	Discharge from factories; Leaching from gas storage tanks and landfills	ppb	5	MCL	0/41	—	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Ethylbenzene	Discharge from petroleum refineries	ppb	700	MCL	0/41	—						
Toluene	Discharge from petroleum factories	ppb	1,000	MCL	0/41	—						
Xylenes (Total)	Discharge from petroleum factories; Discharge from chemical factories	ppb	10,000	MCL	0/41	—						
1-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also, present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	__ ⁸	__ ⁸	0/41	—						
2-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also used to make vitamin K; and is present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	__ ⁸	__ ⁸	0/41	—						
Naphthalene	Naphthalene is found in coal tar or crude oil and is used in the manufacture of plastics, resins, fuels, and dyes, and as a fumigant	ppb	__ ⁸	__ ⁸	0/41	—						
Total Petroleum Hydrocarbons (Total)	TPH is petroleum and can contaminate drinking water through spills and other releases into the environment	ppb	__ ⁵	__ ⁵	0/41	—						
Total Organic Carbon (TOC)	Naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources	ppb	4,000 ⁶	ISP	0/41	—						
Free Chlorine ⁷	Water additive used to control microbes	ppb	4,000	ISP	54/54	10 – 1,050 (421)						
Metals												
Copper	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	1,300	AL	41/41	4.0 – 250 (57)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	15	AL	22/41	0.13 – 0.60 (0.32)						
Volatile Organic Compounds (VOCs)												
Total trihalomethanes (sum of chloroform, bromoform, bromodichloromethane, and di-bromochloromethane)	By-product of drinking water disinfection	ppb	80	MCL	25/41	0.26 – 8.0 (1.8)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Semi-Volatile Organic Compounds (SVOCs)												
Benzo(a)pyrene	Leaching from linings of water storage tanks and distribution lines	ppb	0.2	MCL	5/41	0.018 – 0.036 (0.025)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	

Notes:

¹ This table focuses on JP-5 or other fuel-related analytes detected in drinking water samples collected during this period from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT. Samples were also tested for water quality parameters (see Table A-1 in Appendix A) which provide additional information for the evaluation of overall water quality in the System. This information is available for review on the Safe Waters Webpage (<https://jbphh-safewaters.org/>).

² All results are reported in parts per billion (ppb). This refers to the amount (or concentration) of a contaminant in the water.

³ Results of the drinking water samples will be compared to EPA's Safe Drinking Water Act (SDWA) maximum contaminant level (MCLs), SDWA action levels (ALs), and DOH incident specific parameters (ISPs) - where indicated.

⁴ These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

⁵ There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH will be investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

⁶ Total Organic Carbon (TOC) test results report any constituent containing carbon, many of which are naturally occurring and some of which may be man-made.

⁷ Chlorine is used as an additive to drinking water for disinfection purposes.

⁸ No established MCL from EPA.

Cells highlighted in **green** indicate the water sample results were below their respective MCL, AL, or ISP.

Acronyms and explanation of terms used in this table are presented in Appendix A.



Table 9. Contaminants Detected in Drinking Water Samples Collected from Hydrants

Contaminant ¹	Typical Source of Contaminant	Units ²	Screening Level ³	Basis for Screening Level	EDWM Summary – First Quarter		EDWM Summary – Second Quarter		EDWM Summary – Third Quarter		EDWM Summary – Fourth Quarter	
					Apr – Jun 2024		Jul – Sept 2024		Oct – Dec 2024		Jan – Mar 2025	
					No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴	No. of Detects out of Samples	Minimum – Maximum (Average) ⁴
Contaminants of Concern												
Benzene	Discharge from factories; Leaching from gas storage tanks and landfills	ppb	5	MCL	0/376	--	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
Ethylbenzene	Discharge from petroleum refineries	ppb	700	MCL	0/376	--						
Toluene	Discharge from petroleum factories	ppb	1,000	MCL	0/376	--						
Xylenes (Total)	Discharge from petroleum factories; Discharge from chemical factories	ppb	10,000	MCL	0/376	--						
1-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also, present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁹	-- ⁹	0/376	--						
2-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also used to make vitamin K; and is present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁹	-- ⁹	0/376	--						
Naphthalene	Naphthalene is found in coal tar or crude oil and is used in the manufacture of plastics, resins, fuels, and dyes, and as a fumigant	ppb	-- ⁹	-- ⁹	0/376	--						
Total Petroleum Hydrocarbons (Total)	TPH is petroleum and can contaminate drinking water through spills and other releases into the environment	ppb	-- ⁵	-- ⁵	3/376	48 – 1,552 (579)						
Total Organic Carbon (TOC)	Naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources	ppb	4,000 ⁶	ISP	34/376	200 – 1,800 (375)						
Free Chlorine ⁷	Water additive used to control microbes	ppb	4,000	ISP	382/382	20 – 1,100 (429)						
Volatile Organic Compounds (VOCs)												
1,2-Dibromoethane (EDB)	Pesticide for felled logs and beehives; chemical intermediate for dyes, resins, waxes, and gums	ppb	0.05	MCL	1/121 ⁸	0.0085	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	
2-(2-Methoxy ethoxy)ethanol	Industrial solvent and is also commonly used as a fuel system icing inhibitor (FSII) in jet fuels.	ppb	-- ⁹	-- ⁹	0/121 ⁸	--						
Total trihalomethanes (sum of chloroform, bromoform, bromodichloromethane, and di-bromochloromethane)	By-product of drinking water disinfection	ppb	80	MCL	211/376	0.25 – 32 (3.5)						
Semi-Volatile Organic Compounds (SVOCs)												
Benzo(a)pyrene	Leaching from linings of water storage tanks and distribution lines	ppb	0.2	MCL	25/376	0.013 – 0.027 (0.017)	These samples will be collected between July and September 2024. Results will be reported in the Second EDWM Quarterly Report.		These samples will be collected between October and December 2024. Results will be reported in the Third EDWM Quarterly Report.		These samples will be collected between January and March 2025. Results will be reported in the Fourth EDWM Quarterly Report.	

Notes:

¹ This table focuses on JP-5 or other fuel-related analytes detected in drinking water samples collected during this period from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT. Samples were also tested for water quality parameters (see Table A-1 in Appendix A) which provide additional information for the evaluation of overall water quality in the System. This information is available for review on the Safe Waters Webpage (<https://jbphh-safewaters.org/>).

² All results are reported in parts per billion (ppb). This refers to the amount (or concentration) of a contaminant in the water.

³ Results of the drinking water samples will be compared to EPA's Safe Drinking Water Act (SDWA) maximum contaminant level (MCLs), SDWA action levels (ALs), and DOH incident specific parameters (ISPs) - where indicated.

⁴ These numbers are the minimum and maximum values from all the sample test results. The average (or mathematical mean) includes all sample test results with a detectable contaminant. An average is the sum of the results (excluding non-detects) divided by the total number results with detection only.

⁵ There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH will be investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

⁶ Total Organic Carbon (TOC) test results report any constituent containing carbon, many of which are naturally occurring and some of which may be man-made.

⁷ Chlorine is used as an additive to drinking water for disinfection purposes.

⁸ This chemical was not included in the first draft of the EDWM Plan. After consultation with EPA and DOH, this chemical, along with other VOCs/SVOCs, was added to the list of chemicals analyzed during EDWM beginning in June 2024.

⁹ No established MCL from EPA.

Cells highlighted in **green** indicate the water sample results were below their respective MCL, AL, or ISP.

Acronyms and explanation of terms used in this table are presented in Appendix A.



Table 10. Contaminants Detected in Drinking Water Samples Collected from Source Water (Waiawa Shaft – Post-Chlorination)

Contaminant ¹	Typical Source of Contaminant	Units ²	Screening Level	Basis for Screening Level ³	Sample Period: April 2024			Sample Period: May 2024			Sample Period: June 2024		
					No. of Detects out of Samples	Level Detected	Meets Screening Level? (Yes / No)	No. of Detects out of Samples	Level Detected	Meets Screening Level? (Yes / No)	No. of Detects out of Samples	Level Detected	Meets Screening Level? (Yes / No)
Contaminants of Concern													
Benzene	Discharge from factories; Leaching from gas storage tanks and landfills	ppb	5	MCL	0/1	--	Yes	0/1	--	Yes	0/1	--	Yes
Ethylbenzene	Discharge from petroleum refineries	ppb	700	MCL	0/1	--	Yes	0/1	--	Yes	0/1	--	Yes
Toluene	Discharge from petroleum factories	ppb	1,000	MCL	0/1	--	Yes	0/1	--	Yes	0/1	--	Yes
Xylenes (Total)	Discharge from petroleum factories; Discharge from chemical factories	ppb	10,000	MCL	0/1	--	Yes	0/1	--	Yes	0/1	--	Yes
1-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also, present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites.	ppb	-- ⁴	-- ⁴	0/1	--	--	0/1	--	--	0/1	--	--
2-Methylnaphthalene	Used to make other chemicals such as dyes, and resins; also used to make vitamin K; and is present in cigarette smoke, wood smoke, tar, asphalt, and at some hazardous waste sites	ppb	-- ⁴	-- ⁴	0/1	--	--	0/1	--	--	0/1	--	--
Naphthalene	Naphthalene is found in coal tar or crude oil and is used in the manufacture of plastics, resins, fuels, and dyes, and as a fumigant	ppb	-- ⁴	-- ⁴	0/1	--	--	0/1	--	--	0/1	--	--
Total TPH	TPH is petroleum and can contaminate drinking water through spills and other releases into the environment	ppb	-- ⁵	-- ⁵	0/1	--	--	0/1	--	--	0/1	--	--
Total Organic Carbon (TOC) ⁶	Naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources	ppb	4,000 ⁶	ISP	0/1	--	--	0/1	--	--	0/1	--	--
Free Chlorine ⁷	Water additive used to control microbes	ppb	4,000	ISP	1/2	760	Yes	1/1	920	Yes	2/2	550 – 960 (755)	Yes
Metals													
Copper	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	1,300	MCL	--	--	--	--	--	--	1/1	12	Yes
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	15	MCL	--	--	--	--	--	--	1/1	0.16	Yes
Volatile Organic Compounds (VOCs)													
1,2-Dibromoethane (EDB)	Pesticide for felled logs and beehives; chemical intermediate for dyes, resins, waxes, and gums	ppb	0.05	MCL	--	--	--	0/1	--	Yes	0/1	--	Yes
2-(2-Methoxy ethoxy)ethanol	Industrial solvent and is also commonly used as a fuel system icing inhibitor (FSII) in jet fuels.	ppb	-- ⁴	-- ⁴	--	--	--	0/1	--	--	0/1	--	--
Synthetic Organic Compounds (SOCs) or Semi-Volatile Organic Compounds (SVOCs) – ND													

Notes:

¹ This table focuses on JP-5 or other fuel-related analytes detected in drinking water samples collected during this period from drinking water samples collected as part of the EDWM Plan as well as the results from drinking water samples collected by the WQAT. Samples were also tested for water quality parameters (see Table A-1 in Appendix A) which provide additional information for the evaluation of overall water quality in the System. This information is available for review on the Safe Waters Webpage (<https://jbphh-safewaters.org/>).

² All results are reported in parts per billion (ppb). This refers to the amount (or concentration) of a contaminant in the water.

³ Results of the drinking water samples will be compared to EPA's Safe Drinking Water Act (SDWA) maximum contaminant level (MCLs), SDWA action levels (ALs), and DOH incident specific parameters (ISPs) - where indicated.

⁴ This chemical does not have an MCL.

⁵ There is no established MCL for TPHs. For the purposes of the EDWM Plan, all detections of TPH will be investigated further to determine if JP-5 or other fuel-related analytes are present in the System.

⁶ Total Organic Carbon (TOC) test results report any constituent containing carbon, many of which are naturally occurring and some of which may be man-made.

⁷ Chlorine is used as an additive to drinking water for disinfection purposes.

Cells highlighted in **green** indicate the water sample results were below their respective MCL, AL, or ISP.

Acronyms and explanation of terms used in this table are presented in Appendix A.



Appendix A

Extended Drinking Water Monitoring Frequently Asked Questions

What is the purpose of this EDWM Quarterly Sampling Results Report?

This Report presents the testing results from drinking water samples that were collected from residences, schools, CDCs, other non-residential buildings, hydrants, and source water (i.e., Waiawa Shaft) to continue to demonstrate that the November 2021 release of JP-5 or other fuels are not impacting the JBPHH drinking water system and ensure that the water meets all state and federal standards. The Hawaii Department of Health (DOH) health advisory was amended after the first four stages of the Drinking Water Distribution System Recovery Plan were completed in each Zone¹³ and the health advisory on the System was lifted as of 26 October 2022. As of March 2024, two years of the LTM were completed. The JBPHH PWS #HI0000360 and AMR PWS #HI0000337 is committed to ensuring tap water continues to be safe for human consumption.

We are sharing this information with you to keep you updated on your community's water quality.

What was found?

The tables on the previous pages present all chemicals of concern that were detected in drinking water samples collected during EDWM. This report, together with the data collected, demonstrates that the drinking water provided by the System meets U.S. EPA and DOH drinking water standards and JP-5 or other fuels are not impacting the System. To assess drinking water results, the Navy used EPA and DOH MCL standards for drinking water. Results of the drinking water samples are analyzed in accordance with the final EDWM Plan finalized on 23 October 2024.

What did the Navy test for?

Drinking water, including bottled water, can contain small amounts of some contaminants. The presence of these analytes does not necessarily indicate that water poses a health risk. More information about the analytes tested can be obtained by calling the Hawaii DOH Safe Drinking Water Branch at: **(808) 586 – 4258**.

In order to ensure that drinking water is safe to drink, EPA and Hawaii DOH regulate the number of certain constituents in water provided by public water systems. For this incident, the primary categories of monitored constituents include TPHs, VOCs, SOCs/SVOCs, metals, and TOC, as listed in Table A-1. A description of these contaminant categories can be found under *Explanation of Terms* located at the end of this report. The full list of analytes that were tested are summarized in the table below and the results are presented in the laboratory reports that are located at: <https://jbphh-safewaters.org>.

Table A-1: EDWM ANALYTICAL LIST (as of October 2024)

Analytical Method	Analyte	CASRN	Residential Priority Buildings Sampling	Hydrant Sampling	Waiawa Shaft Sampling Source (Raw) Water / Post Chlorination	NAH Shaft Sampling Source (Raw) Water	Red Hill Shaft Sampling Source (Raw) Water
EPA 524.2	Benzene ¹	71-43-2	All	M	M/M	n/a	n/a

¹³ Drinking Water Distribution System Recovery Plan: <https://www.cpf.navy.mil/Portals/52/Drinking-Water-Distribution-System-Recovery-Plan.pdf>.



Analytical Method	Analyte	CASRN	Residential Priority Buildings Sampling	Hydrant Sampling	Waiawa Shaft Sampling Source (Raw) Water / Post Chlorination	NAH Shaft Sampling Source (Raw) Water	Red Hill Shaft Sampling Source (Raw) Water
EPA 524.2	n-Butylbenzene ¹	104-51-8	All	M	M/M	n/a	n/a
EPA 524.2	sec-Butylbenzene ¹	135-98-8	All	M	M/M	n/a	n/a
EPA 524.2	Tert-Butylbenzene ¹	98-06-6	All	M	M/M	n/a	n/a
EPA 524.2	Ethyl Benzene ¹	100-41-4	All	M	M/M	n/a	n/a
EPA 524.2	Isopropylbenzene ¹	98-82-8	All	M	M/M	n/a	n/a
EPA 524.2	n-Propylbenzene ¹	103-65-1	All	M	M/M	n/a	n/a
EPA 524.2	Toluene ¹	108-88-3	All	M	M/M	n/a	n/a
EPA 524.2	1,2,4-Trimethylbenzene ¹	95-63-6	All	M	M/M	n/a	n/a
EPA 524.2	1,3,5-Trimethylbenzene ¹	108-67-8	All	M	M/M	n/a	n/a
EPA 524.2	Xylenes (Total) ¹ • m,p-Xylenes • o-Xylenes	1330-20-7 95-47-6	All	M	M/M	n/a	n/a
EPA 524.2	Total trihalomethanes(TTHM): • Chloroform • Bromoform • Bromodichloromethane • Dibromochloromethane	TTHMs 67-66-3 75-25-2 75-27-4 124-48-1	All	M	n/a/M	n/a	n/a
EPA 525.2	1-Methylnaphthalene ¹	90-12-0	All	M	M/M	n/a	n/a
EPA 525.2	2-Methylnaphthalene ¹	91-57-6	All	M	M/M	n/a	n/a
EPA 525.2	Naphthalene ¹	91-20-3	All	M	M/M	n/a	n/a
EPA 525.2	Acenaphthylene ²	208-96-8	All	M	M/M	n/a	n/a
EPA 525.2	Anthracene ²	120-12-7	All	M	M/M	n/a	n/a
EPA 525.2	Benzo[a]pyrene ²	50-32-8	All	M	M/M	n/a	n/a
EPA 525.2	Benzo[b]fluoranthene ²	205-82-3	All	M	M/M	n/a	n/a
EPA 525.2	Benzo[k]fluoranthene ²	207-08-9	All	M	M/M	n/a	n/a
EPA 525.2	Benzo[g,h,i]perylene ²	191-24-2	All	M	M/M	n/a	n/a
EPA 525.2	Chrysene ²	218-01-9	All	M	M/M	n/a	n/a
EPA 525.2	Dibenz[a,h]anthracene ²	53-70-3	All	M	M/M	n/a	n/a
EPA 525.2	Fluorene ²	86-73-7	All	M	M/M	n/a	n/a
EPA 525.2	Indeno[1,2,3-cd]pyrene ²	193-39-5	All	M	M/M	n/a	n/a
EPA 525.2	Phenanthrene ²	85-01-8	All	M	M/M	n/a	n/a
EPA 525.2	Pyrene ²	129-00-0	All	M	M/M	n/a	n/a
EPA 8260 EPA 8015 EPA 8015	JP-5 as Combined Total Petroleum Hydrocarbons (TPH)- Gasoline, Diesel, and Oil Ranges	PCHG PCHD MOIL	All	M	M/M	n/a	n/a
EPA 200.8	Copper	7440-50-8	All	n/a	n/a	n/a	n/a
EPA 200.8	Lead	7439-92-1	All	n/a	n/a	n/a	n/a
EPA 245.1	Mercury	7439-94-7	All	n/a	n/a	n/a	n/a
SM 5310 B, C or D, or EPA 415.3, Rev 1.2	Total Organic Carbon (TOC)	TOC	All	M	M/M	n/a	n/a
HACH 8021 (Based on SM 4500-Cl G)	Chlorine, Free (Field Test): • Sample Hot Water • Sample Cold Water	7782-50-5	All	M	n/a/M	n/a	n/a
EPA 170.1	Temperature (Field Test): • Sample Hot Water • Sample Cold Water	TMP	All	M	M/M	Q	Q
EPA 150.3	pH (Field Test)	pH	All	M	M/M	Q	Q
SM 2510 B	Conductivity (Field Test)	CONDUCT	All	M	M/M	Q	Q
SM 2130 B	Turbidity (Field Test)	TURBID	All	M	M/M	Q	Q
SM 2320 B	Total Alkalinity	TOTAL_AL	All	M	M/M	Q	Q



Analytical Method	Analyte	CASRN	Residential Priority Buildings Sampling	Hydrant Sampling	Waiawa Shaft Sampling Source (Raw) Water / Post Chlorination	NAH Shaft Sampling Source (Raw) Water	Red Hill Shaft Sampling Source (Raw) Water
EPA 200.7	Cations: - Sodium - Potassium - Calcium - Magnesium - Iron - Manganese	K 7440-23-5 7440-09-7 7440-70-2 7439-95-4 7439-89-6 7439-96-5	n/a	n/a	M/M	Q	Q
EPA 200.7	Silica	7631-86-9	n/a	n/a	M/M	Q	Q
EPA method 300.0 Rev. 2.1	Anions: - Chloride - Sulfate - Fluoride - Ortho-Phosphate-P - Bromide	16887-00-6 14808-79-8 16984-48-8 14265-44-2 24959-67-9	n/a	n/a	M/M	Q	Q
EPA method 300.1 Rev. 1.0	Anions: - Chlorite - Bromate - Chlorate	14998-27-7 15541-45-4 14866-68-3	n/a	n/a	M/M	Q	Q
EPA 504.1	Ethylene Dibromide	106-93-4	n/a	Q	Q	n/a	n/a
EPA 8270SIM	2-(2-Methoxyethoxy)-Ethanol	111-77-3	n/a	Q	Q	n/a	n/a

Notes:

All: Indicates every location will be sampled, M: Indicates monthly sampling, Q: Indicates quarterly sampling, n/a: Indicates not applicable. The analytical laboratory will report non-detected results to the MDL. Values between the MDL and MRL will be flagged as estimates ('J' flag).

¹ These analytes are primary components of JP-5 (i.e., these analytes comprise a significant amount [based on their molar fraction in JP-5 samples obtained from Red Hill on July 5, 2023, and their solubility in water] of the composition of JP-5 dissolved in water) and are key indicators of the presence/absence of JP-5 in drinking water samples.

² These analytes are potentially associated with other petroleum compounds (e.g., other fuels, oils, and lubricants).

³ Lead and copper concentrations in drinking water regulations do not have MCL's, only Action Levels. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. For the purposes of EDWM sampling, lead and copper concentrations in drinking water will be screened at the regulatory Action Levels, though these are not samples collected for the purposes of compliance with federal and state lead and copper regulations.

What happened leading up to the implementation of the EDWM Plan?

On November, 2021, jet fuel was released at the Red Hill Bulk Fuel Storage Facility. Subsequent reporting of fuel-like smell or visual sheen in addition to complaints of health issues from ingestion or dermal contact with the Navy and Army system water were received by the Navy and DOH. On November 28, 2021, the Navy reported that a chemical release of petroleum, which is a hazardous substance, entered the JBPHH drinking water distribution system from the Red Hill Shaft. This release triggered an emergency response and DOH issuance of a public health advisory on November 29, 2021, for the entire JBPHH Public Water System No. HI0000360 (JBPHH System).

The Hawaii DOH, EPA, Navy, and Army formed the Interagency Drinking Water Systems Team (IDWST) to work on a coordinated effort to restore safe drinking water to all Navy Water System users. LTM began in March 2022, immediately following the amendment of the health advisories in each Zone. During LTM Period 6, the frequency of TPH detections increased, primarily in the diesel-range organics (TPH-D). None of these detections has exceeded the DOH's incident-specific parameter (ISP) level of 266 micrograms per liter (µg/L). Since October 2023, the Navy has proactively worked with EPA and DOH on actions to investigate these low-level TPH detections in drinking water samples collected from the JBPHH System. These actions have included inspection and sampling of hot water heaters and interior faucets to ensure there is no



contaminant buildup, as well as collection of samples from various points throughout the System.

During the week of 29 January 2024, an interagency team comprised of SMEs from the EPA, DOH, Navy, and Navy contractors met to discuss low-level TPH detections reported in drinking water samples collected from the System. Investigation into the low-level TPH detections indicated these results were likely attributed to a reaction between chlorine in the water (from treatment) and a surrogate used in the lab when analyzing the samples. The Navy voluntarily committed to extend enhanced monitoring beyond the end of LTM, and developed the EDWM Plan to analyze drinking water samples using a revised analytical method following the completion of LTM.¹⁴

LTM of the PWS #HI0000360 and PWS #HI0000337 was completed by April 2024. EDWM incorporates lessons learned from LTM (including refinements to analytical methods) and focuses on JP-5 and other fuel-related analytes. EDWM sampling took place for one year after the completion of LTM (i.e., April 2024 – March 2025), and focus on locations not previously tested during LTM.

Where does our water come from?

As of the time of this report, the source of water for the Navy Water System solely comes from the Navy Waiawa Shaft, which was not impacted by the release of JP-5 that occurred at Red Hill in November 2021. The Waiawa Shaft has been sampled, and the EPA and the DOH confirmed that it meets all State and Federal drinking water standards. The Waiawa Shaft will be sampled (in subsequent months during EDWM) in accordance with EPA and the DOH requirements.

What has the Navy done to ensure drinking water is safe for human consumption?

Working closely with the DOH, EPA, and other regulatory bodies, the Navy is working to ensure compliance with all state and federal Standards. The Navy has taken several steps to ensure drinking water continues to be safe for human consumption. These steps have included:

- Completing two years of LTM (March 2022 – March 2024). LTM was implemented as a method of surveillance to continuously ensure that the water is safe to drink, meets all State and Federal drinking water standards, and confirms the System is not being impacted by JP-5 or other fuel-related analytes.
- Implementing the EDWM Plan (April 2024 – March 2025). The purpose of EDWM is to continue to ensure drinking water provided by the System is safe for human consumption by implementing lessons learned from LTM, sampling more residences, and enhancing the ongoing sampling efforts.
- Establishing the Navy Closure Task Force-Red Hill (NCTF-RH) to oversee the safe and deliberate decommissioning of the Red Hill Bulk Fuel Storage Facility, which was the original source of the fuel release. NCTF-RH is dedicated to protecting the environment and public health during the decommissioning process. For more information on the decommissioning of Red Hill, please visit: <https://www.navyclosurereadhill.navy.mil>.
- Expanding the availability of the Red Hill Clinic. The goal of the Red Hill Clinic is to offer assessments and care for individuals who may have been exposed to contaminated water. This clinic provides support to those experiencing symptoms related to contamination. For more information on medical assistance, please visit: <https://nhchawaii.tricare.mil/Clinics/BHC-Makalapa/Red-Hill-Clinic>.

¹⁴ For more information on the low-level TPH detections observed during LTM and the results of the investigation into these results, see the Summary of Technical Memorandum Regarding Low-Level Hydrocarbon Detections Observed During Long-Term Monitoring at: https://jbphh-safewaters.org/public/Tech_Memo_JBPHH_LOE's_LTM_TPH_Detects_Redacted_Rev.pdf.



- Establishing the WQAT, made up of experts to focus on the quality of drinking water. The team is available to collect drinking water samples to test for the presence of TPH and conduct a water quality investigation. To dispatch the WQAT, residents can call the JBPHH Drinking Water Call Center at **(808) 210 – 6968**.
- Updating the Safe Waters Webpage to include up-to-date sampling results and findings, available to all residents at JBPHH. The Safe Waters Webpage provides accurate information about the current status of water and ongoing sampling efforts to ensure public safety. For more information, visit: <https://jbphh-safewaters.org>.
- Conducting extensive per- and polyfluoroalkyl substances (PFAS) sampling of the Navy's drinking water wells (June 2024 – June 2025). The results of these sampling efforts are available online at <https://jbphh-safewaters.org>.

When was EDWM sampling conducted?

EDWM began in April 2024. Per the approved EDWM Plan, drinking water samples will continue to be collected from residences, schools, CDCs, non-residences, and hydrants on a monthly basis for one year (i.e., April 2024 – March 2025). The results of EDWM sampling will be summarized on a quarterly basis.

Where were EDWM samples taken?

Per the approved EDWM Plan, samples will be collected at houses that were not previously sampled within LTM, with the goal of sampling 100% of the un-sampled houses on the System by the end of EDWM. Approximately 65% of residences within each Zone were sampled during LTM, which leaves approximately 35% remaining to be sampled during EDWM.

For more information on where samples were taken, please visit the Safe Waters Website at: <https://jbphh-safewaters.org>

Where can I get more information about the potential health effects associated with these contaminants?

Hawaii Department of Health (DOH)

<https://health.hawaii.gov/about/navy-water-system-quality-updates/>.

Call the DOH Safe Drinking Water Branch at 808-586-4258

US Environmental Protection Agency (EPA)

<https://www.epa.gov/ground-water-and-drinking-water/forms/online-form-epas-office-ground-water-and-drinking-water>.

Call EPA Region 9's Environmental Information Center at 1-866-372-9378



Explanation of Terms and Acronyms used in this Report

Action Level (AL). This AL is for Lead and Copper. The AL is a measure of the effectiveness of the corrosion control treatment in water systems. The AL is not a standard for establishing a safe level of lead or copper. The AL is the point at which certain provisions of the proposed standards must be initiated.

Contaminant. Contaminant is any physical, chemical, biological, or radiological substance or matter in water, and can be either healthy or unhealthy, depending on the particular substance and concentration. It could also be a physical parameter monitored such as pH or temperature.

DOH. Hawaii Department of Health

DOH Environmental Action Level (EAL). The DOH Environmental Action Levels (EALs) are concentrations of contaminants in drinking water and other media (e.g., soil, soil gas, and groundwater) below which the contaminants are assumed not to pose a significant threat to human health or the environment. Exceeding these EAL does not necessarily indicate that contamination at the site poses environmental hazards but generally warrants additional investigation.

EPA U.S. Environmental Protection Agency

Free Chlorine. Chlorine is added to drinking water as part of the treatment process. Adding chlorine is the most common way to disinfect drinking water. Disinfection kills bacteria, viruses, and other microorganisms that could cause disease or illness. Chlorine is effective and continues to keep the water safe as it travels from the treatment plant to the consumer's tap. Chlorine measurements provide another line of evidence for evaluating drinking water quality.

Incident Specific Parameter (ISP). To more comprehensively monitor and respond to this specific petroleum contamination of drinking water, the DOH identified contaminants that require additional action prior to amending the Health Advisory. The ISPs are used as a line of evidence to evaluate the data generated in each Zone during the investigation conducted by the IDWST.

Maximum Contaminant Level (MCL). An MCL is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. The MCL is set to protect the public from acute and chronic health risks associated with consuming water containing these contaminants.

Metals. Metals are not derived from living sources and in general do not contain carbon. Metals include antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, copper, cyanide, fluoride, lead, mercury, nitrate, nitrite, selenium, and thallium. These contaminants get into drinking water supplies through industrial discharge or spills, erosion of natural deposits, corrosion, sewage discharge, fertilizer runoff, and other sources.

ND. Non-Detect

Project Specific Screening Level. DOH uses multiple criteria to assess the safety of the drinking water including maximum contaminant levels (MCLs) previously established environmental action levels (EALs) and incident specific parameters (ISPs).


Synthetic Organic Compounds (SOCs)/Semi-Volatile Organic Compounds (SVOCs).

SOCs and SVOCs may be used interchangeably and are man-made, organic (carbon-based) chemicals that are less volatile than Volatile Organic Contaminants (VOCs). They are used as pesticides, defoliants, fuel additives, and as ingredients for other organic chemicals.

Total Organic Carbon (TOC). TOC is naturally present in the environment, but also can be an indicator of contamination, including petroleum or other sources.

Total Petroleum Hydrocarbons (TPH). TPH is a term used to describe a large family of several hundred chemical compounds that come from crude oil. Crude oil is used to make petroleum products, which can contaminate the environment. TPH is comprised of detected results from TPH-D, TPH-G, and TPH-O. TPHs are analyzed using EPA Method 8015D and 8260. These methods are not fuel-specific. TPH results reported using these methods represent the total concentration (or amount) of hydrocarbons present in the sample. Hydrocarbons can be petroleum (e.g., crude oil, JP-5, and other fuels), biogenic (i.e., organic compounds produced by living organisms such as algae or bacteria), or pyrogenic (i.e., produced via combustion). Many hydrocarbons are naturally occurring and are present in drinking water.

Total Trihalomethanes (TTHM). TTHM is the sum of the concentration in milligrams per liter of the trihalomethane compounds (trichloromethane [chloroform], dibromochloromethane, bromodichloromethane and tribromomethane [bromoform]).

Units. A unit is the concentration of contaminant found in the water. For this report, the units are expressed in U.S. Standard Units.

U.S. Standard Unit (Name)	Acronym	Equivalent International System of Units (Name)	Acronym
parts per billion	ppb	micrograms per liter	mg/L

Volatile Organic Compounds (VOCs). VOCs are a class of chemicals that contain carbon and evaporate, or volatilize, easily into air at room temperature. VOCs are found in a variety of commercial, industrial, and residential products, including gasoline, solvents, cleaners and degreasers, paints, inks and dyes, and pesticides.

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 1/30/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Pollardwater Food Grade Anti-Seize
Product code : P67751

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Lubricant where there may be incidental food contact

1.3. Supplier

Pollardwater
200 Atlantic Avenue
New York, NY 11040
T 800-437-1146

1.4. Emergency telephone number

Emergency number : Infotrac: North America 1-800-535-5053| Australia 1-300-366-961 | Germany 0800-181-2926 |
International 011-1-352-323-3500 (collect) | China 400-120-076

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Reproductive toxicity Category 2 H361 Suspected of damaging fertility or the unborn child
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H361 - Suspected of damaging fertility or the unborn child
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown acute toxicity (GHS US)

37.33% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

52.13% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

36.73% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
white mineral oil (petroleum)	CAS-No.: 8042-47-5	40-60
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	CAS-No.: 68411-46-1	<2.5
zinc oxide	CAS-No.: 1314-13-2	1-3

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Do not use a heavy water stream. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

5.3. Special protective equipment and precautions for fire-fighters

- | | | |
|--------------------------------|---|---|
| Firefighting instructions | : | Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : | Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------|---|---|
| General measures | : | Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
|------------------|---|---|

6.1.1. For non-emergency personnel

- | | | |
|----------------------|---|---|
| Protective equipment | : | Wear recommended personal protective equipment. |
| Emergency procedures | : | Ventilate spillage area. |

6.1.2. For emergency responders

- | | | |
|----------------------|---|---|
| Protective equipment | : | Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : | Evacuate unnecessary personnel. Stop leak if safe to do so. |

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- | | | |
|-------------------------|---|---|
| For containment | : | Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : | Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. |
| Other information | : | Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- | | | |
|-----------------------------------|---|--|
| Additional hazards when processed | : | Not expected to present a significant hazard under anticipated conditions of normal use. |
| Precautions for safe handling | : | Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. |
| Hygiene measures | : | Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

- | | | |
|---------------------|---|---|
| Technical measures | : | Keep in a cool, well-ventilated place away from heat. |
| Storage conditions | : | Store locked up. |
| Packaging materials | : | Store always product in container of same material as original container. |

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

white mineral oil (petroleum) (8042-47-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m ³ (Inhalable fraction)
zinc oxide (1314-13-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Zinc oxide
ACGIH OEL TWA	2 mg/m ³ (Respirable fraction)
ACGIH OEL STEL	10 mg/m ³ (Respirable fraction)
Remark (ACGIH)	TLV® Basis: Metal fume fever
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Zinc oxide
OSHA PEL TWA	5 mg/m ³ (Fume) 15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: light brown
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 478 °F (248°C), ASTM D 92
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Pollardwater Food Grade Anti-Seize

Unknown acute toxicity (GHS US)	37.33% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 52.13% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 36.73% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
---------------------------------	--

white mineral oil (petroleum) (8042-47-5)

LD50 oral rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Read-across, Inhalation (aerosol), 14 day(s))

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

LD50 oral rat	> 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Skin)

zinc oxide (1314-13-2)

LD50 oral rat	> 5000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.7 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 14 day(s))

Skin corrosion/irritation	: Not classified
---------------------------	------------------

white mineral oil (petroleum) (8042-47-5)

pH	No data available in the literature
----	-------------------------------------

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

pH	5.1 – 6.2 (1 %, 20 - 25 °C)
----	-----------------------------

zinc oxide (1314-13-2)

pH	6.07 – 6.55 (2.9E-4 %, 20 °C, OECD 105: Water Solubility)
----	---

Serious eye damage/irritation	: Not classified
-------------------------------	------------------

white mineral oil (petroleum) (8042-47-5)

pH	No data available in the literature
----	-------------------------------------

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
pH	5.1 – 6.2 (1 %, 20 - 25 °C)
zinc oxide (1314-13-2)	
pH	6.07 – 6.55 (2.9E-4 %, 20 °C, OECD 105: Water Solubility)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified.
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
NOAEL (oral,rat,90 days)	25 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
white mineral oil (petroleum) (8042-47-5)	
Viscosity, kinematic	3 – 20.5 mm²/s (40 °C, ISO 3104: Determination of kinematic viscosity and calculation of dynamic viscosity, Niet experimenteel bepaald; afgeleid van de indeling)
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Viscosity, kinematic	353 mm²/s (40 °C, OECD 114: Viscosity of Liquids)
zinc oxide (1314-13-2)	
Viscosity, kinematic	Not applicable (solid)
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

white mineral oil (petroleum) (8042-47-5)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	51 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
zinc oxide (1314-13-2)	
LC50 - Fish [1]	1.55 mg/l (96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Zinc ion)

12.2. Persistence and degradability

Pollardwater Food Grade Anti-Seize	
Persistence and degradability	Not rapidly degradable
white mineral oil (petroleum) (8042-47-5)	
Persistence and degradability	Not readily biodegradable in water.
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Persistence and degradability	Not readily biodegradable in water.
zinc oxide (1314-13-2)	
Persistence and degradability	Biodegradability in soil: not applicable,Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

white mineral oil (petroleum) (8042-47-5)	
BCF - Other aquatic organisms [1]	1216 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	5.18 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
BCF - Fish [1]	1730 (42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Read-across, GLP)
Partition coefficient n-octanol/water (Log Pow)	6.66 (Experimental value, OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method, 23 °C)
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).
zinc oxide (1314-13-2)	
BCF - Fish [1]	78 – 2060 (14 day(s), Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	1.53 (Estimated value)
Bioaccumulative potential	Not bioaccumulative.

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

white mineral oil (petroleum) (8042-47-5)	
Surface tension	No data available in the literature, Data waiving
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.64 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Mobility in soil	60460 Source: EPISUITE
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.754 – 8.947 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Adsorbs into the soil.
zinc oxide (1314-13-2)	
Surface tension	Not applicable (solid)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.2 (log Koc, Literature study)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT	TDG	IMDG	IATA
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

white mineral oil (petroleum) (8042-47-5)
Listed on the Canadian DSL (Domestic Substances List)

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)
Listed on the Canadian DSL (Domestic Substances List)

zinc oxide (1314-13-2)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

Pollardwater Food Grade Anti-Seize

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

National regulations

white mineral oil (petroleum) (8042-47-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

zinc oxide (1314-13-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Benzenesulfonicacid,dodecyl-,calciumsalt(26264-06-2)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
zinc oxide(1314-13-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
chalk(1317-65-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases

H361	Suspected of damaging fertility or the unborn child
------	---

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

June 24, 2024

NAVFAC Hawaii
400 Marshall Road
JBPHH HI 96860-3139**Subject: Joint Base Pearl Harbor-Hickam Drinking Water
EDWM TPH Detection Investigation
Sample D2-TW-0007107-24092-N**

Attention CDR Dunn:

On Saturday, June 1, 2024, AECOM Technical Services, Inc. (AECOM) was notified of an oil range organics (ORO) detection of 62.4 micrograms per liter ($\mu\text{g/L}$) in sample D2-TW-0007107-24092-N, collected from the residence at 132 19th Street in Zone D2 on May 28, 2024. The sample was analyzed at (b) (4), Colorado, for total petroleum hydrocarbons (TPH) via United States Environmental Protection Agency SW-846 Method 8015D following micro-extraction by SW-846 Method 3511. Reported TPH values are the sum of diesel range organics (DRO) and ORO. DRO was reported as not detected at the method detection limit of 46 $\mu\text{g/L}$.

AECOM immediately launched an investigation to determine if the reported detection was likely to be related to a fuel-related petrogenic source, particularly the November 2021 release of Jet Propellant 5 (JP-5), and if not, to assign a probable reason for the detection. This investigation consisted of three steps: review of the Method 8015 chromatogram, Tier 1 mass spectral evaluation, and additional Tier 2 Gas Chromatography/Mass Spectrometry (GC/MS) analyses, each of which is described in detail below. All evidence points to the conclusion that this detection is unrelated to JP-5 and is likely due to contamination with a lubricating oil that may have been introduced at the time of sample collection or in the laboratory.

The chromatogram for this sample is shown on Figure 1. Figure 2 displays the retention time marker reference standard with each of the carbon numbers labeled. The sample chromatogram shows an unresolved complex mixture (UCM) that begins at approximately the C20 carbon range marker and extends slightly beyond C40 carbon range marker. Since JP-5 elutes in the C10 to C16 range (Figure 3), there is no overlap with the substance found in the sample and therefore is clearly not related to a JP-5 release. Broad smooth UCM patterns in this C20 to C40 carbon range are characteristic of highly refined lubricating oils.

The observed UCM in this sample chromatogram may be attributable to lubricants that originated in the premise plumbing or household supplies in the vicinity of the sampling point and introduced into the sample through incidental contact. It is also possible that it is a laboratory artifact that was introduced during preparation or analysis of the sample. To evaluate a possible laboratory source, Figure 4 presents the sample chromatogram (black) overlaid with the laboratory's low-level ORO calibration standard (blue) and the retention time marker standard (red). While there is not an exact match between the sample and the laboratory standard, they are sufficiently similar that it is reasonable to conclude that the observed ORO detection may have been the result of incidental contact with the laboratory's ORO standard solution or other lubricating oils used in the laboratory.

Figure 1. Sample DA64599-2 D2-TW-0007107-24092-N

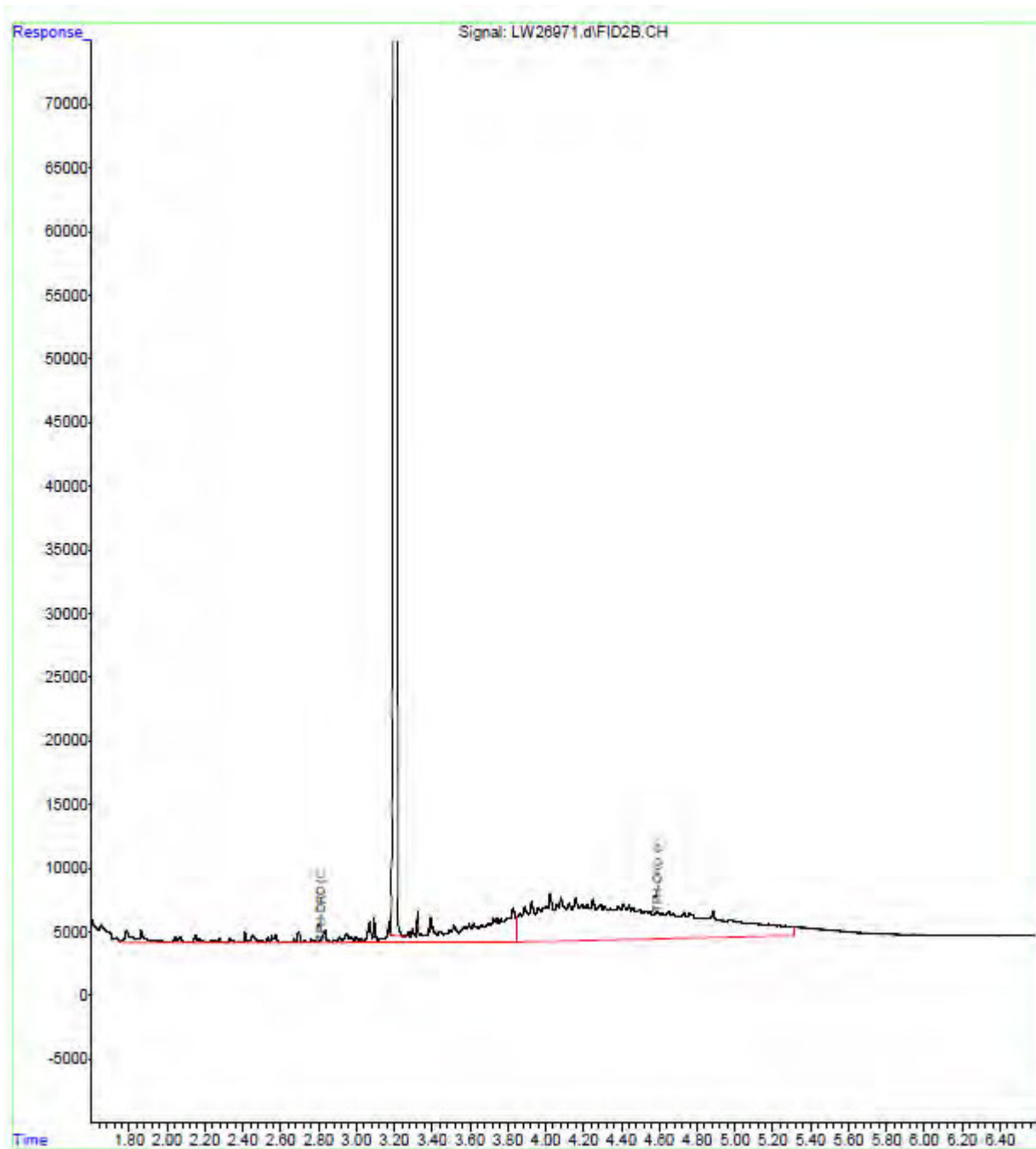


Figure 2. Retention Time Marker Standard with Carbon Numbers

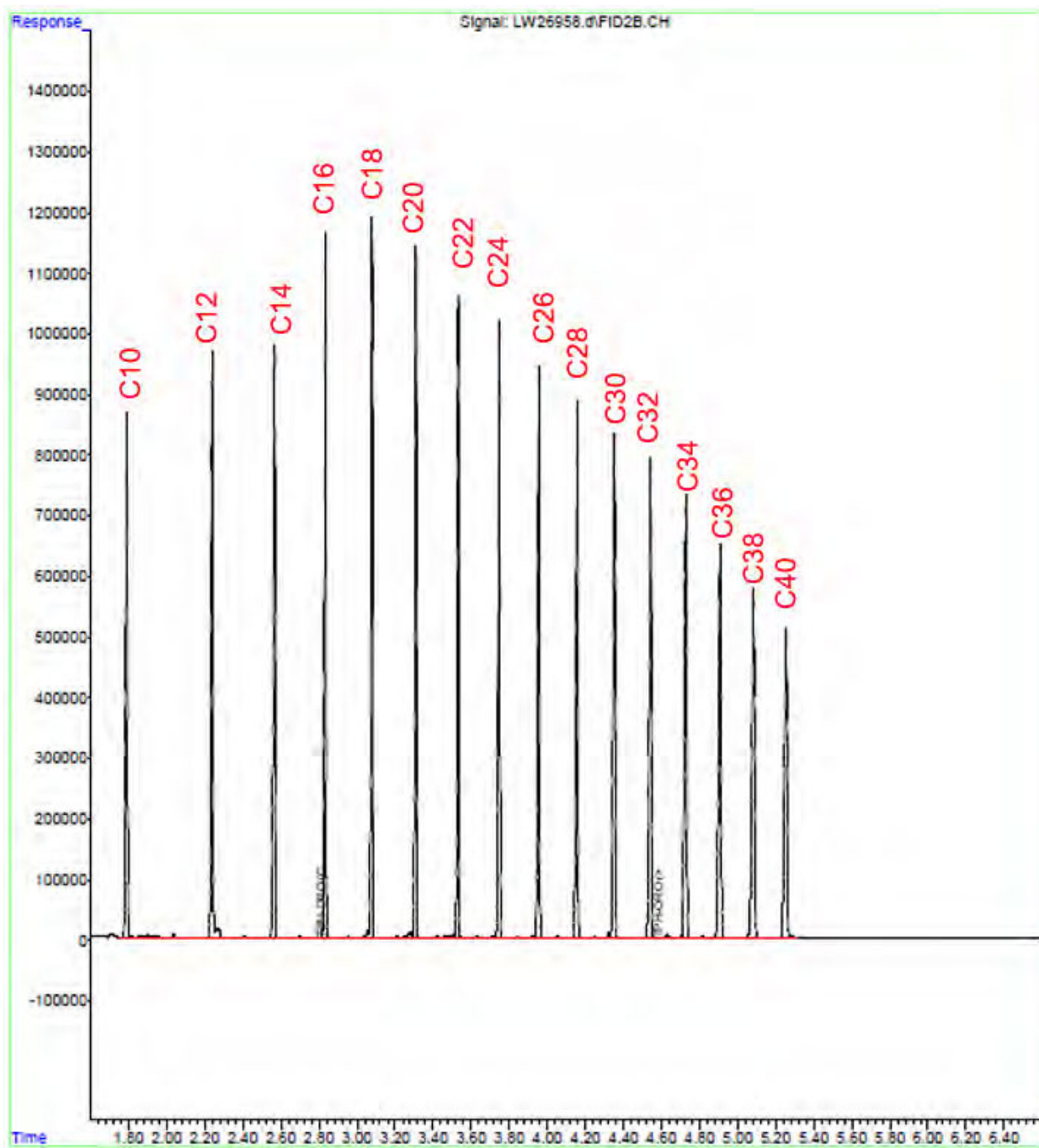


Figure 3. JP-5 Standard

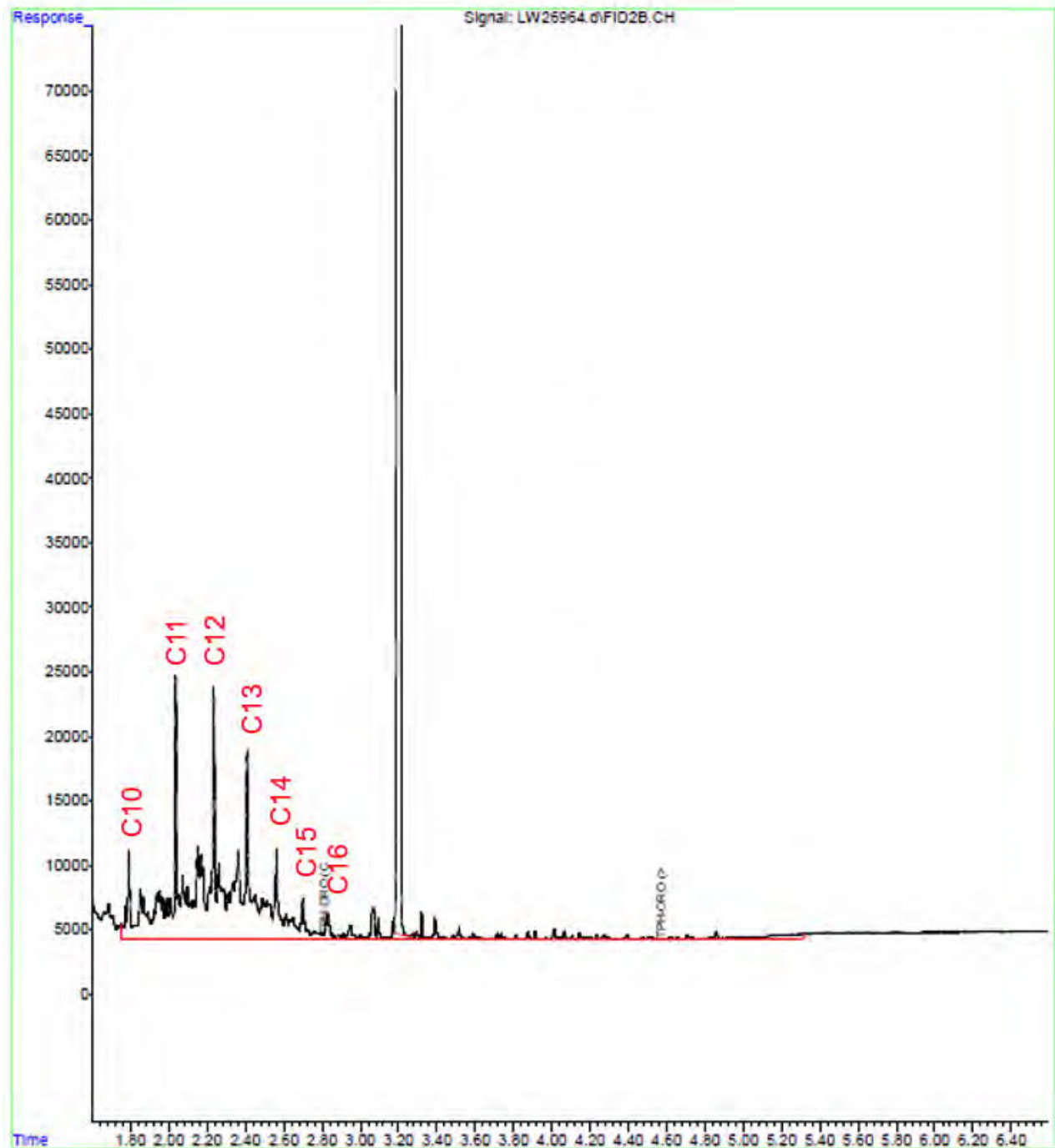
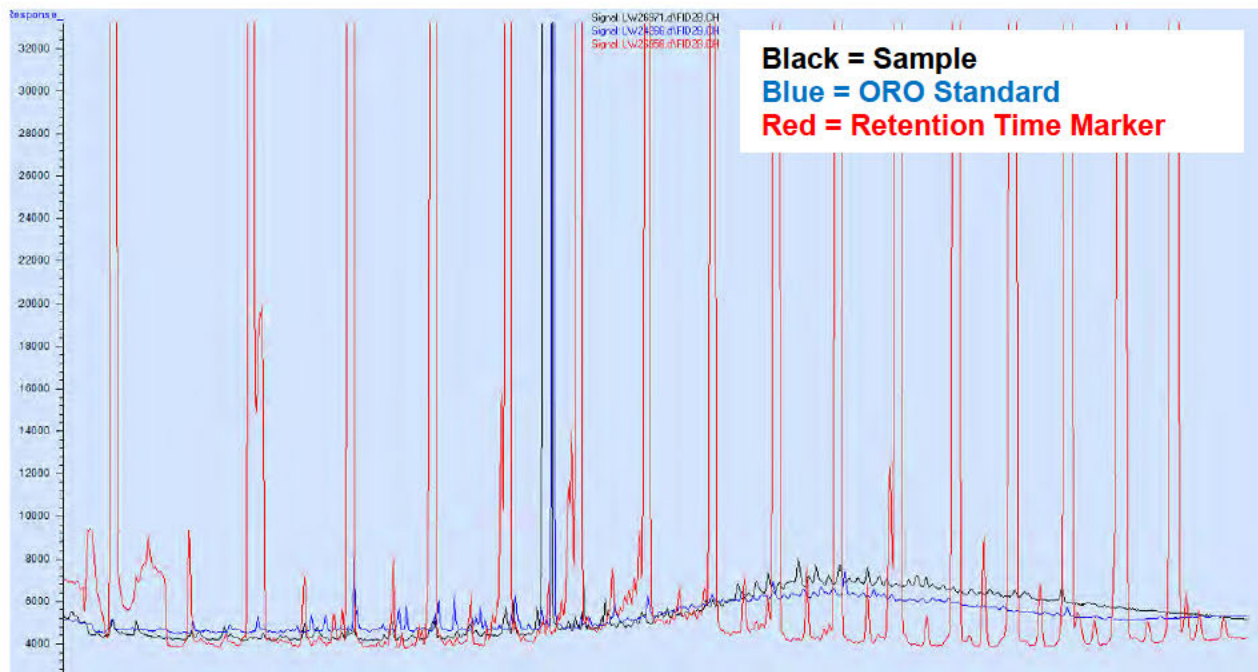


Figure 4. Sample DA64599-2 D2-TW-0007107-24092-N, Overlaid with ORO Standard and Retention Time Marker



The sample extract was further evaluated using the Tier 1 mass spectral confirmation procedure outlined in the Extended Drinking Water Monitoring (EDWM) plan. The procedure entails analyzing the sample and associated method blank extracts obtained in the original extraction using full scan gas chromatograph and mass spectroscopy (GC/MS) via Method 8270. The resulting total ion chromatograms are evaluated as follows:

- 1) For the sample, retain all peaks that are above a 3:1 signal-to-noise (S:N) ratio.
- 2) For peaks retained from Step 1, retain all peaks that have a response greater than 5 times that found in the method blank.
- 3) Obtain the mass spectrum and perform a background subtraction (including all blank contamination present below the method reporting limit/method detection limit for each peak retained from Step 2).
- 4) Perform a tentatively identified compound (TIC) search evaluation on each peak retained from Step 3 by comparing the corrected mass spectrum to a National Institute of Standards and Technology mass spectral library. Retain the top five probability matches for each. Retain a list of all TICs with an 80 percent probability match or higher.
- 5) Evaluate chromatograms, Extraction Limited Ion Profile Screening (ELIPS), and additional chemistry data from the laboratory to determine if the detected TPH is JP-5/other fuel-related analytes or is associated TPH-O, and/or with “naturally occurring” hydrocarbons.

The results of this evaluation further support the conclusion that the TPH detection is due to the presence of a high molecular weight hydrocarbon mixture consistent with a lubricating oil. The ELIPS selected ion chromatogram reviews did not indicate the presence of specific known

petroleum-related chemicals at concentrations indicating the presence of fresh or weathered petroleum-derived fuel products.

In addition, the residence at 132 19th Street was resampled on June 3, 2024, and submitted to (b) (4) Massachusetts, for the Tier 2 analyses identified in the EDWM plan, specifically paraffins, isoparaffins, aromatics, naphthenes, and olefins (PIANO) Volatile Organics by SW-846 Method 8260D, parent and alkylated polycyclic aromatic hydrocarbons (P&A PAHs) by SW-846 Method 8270E with selected ion monitoring, and saturated hydrocarbons (SHCs) by SW-846 Method 8015D (modified). A trip blank (PIANO) and field blank (P&A PAHs and SHCs) were submitted with the sample. All results were non-detect with the exception of a 1 µg/L detection of n-octacosane (28 carbon n-alkane) in both the sample and the field blank in the SHC analysis. The presence of the one detected analyte in the field blank, as well as the sample, and the complete lack of any other C20-C40 hydrocarbon detections or unresolved complex mixture supports the conclusion that the original detection was the result of incidental contamination in the field or laboratory, and was not present in the residential drinking water.

AECOM has concluded that the chromatographic evidence from the original, Tier 1, and Tier 2 analyses points to incidental contamination of the original sample with a heavy, lubricating oil hydrocarbon mixture unrelated to JP-5 or any other fuel product. It is not known with certainty whether the artifact was introduced in the field or in the laboratory; however, AECOM concludes that the most likely source was incidental contact in the laboratory with the ORO calibration standard due to similarity of the sample and ORO standard chromatographic patterns, and because the pattern was not detectable in a back-up sample analyzed at a different laboratory.

There is no evidence of a systematic contamination issue in the laboratory. Method blanks have been free of ORO detections, and the only other ORO detection since the beginning of the EDWM was the 1,460 µg/L detection in FH079 which was attributed to the routine use of lubricating grease in the hydrant fittings. Therefore, no additional action is recommended at this time.

Questions regarding this letter should be addressed to (b) (6)

Yours sincerely,

(b) (6)

Senior Project Chemist

(b) (6)

CLEAN Program Manager

(b) (6)

Attachments

Attachment 1: Tier 1 Evaluation, Sample DA64599-2 D2-TW-0007107-24092-N

Attachment 1:
Tier 1 Evaluation, Sample DA64599-2 D2-TW-0007107-24092-N

Attachment 1:

Tier 1 Evaluation, Sample D2-TW-0007107-24092-N

Data Path : C:\Users\ (b) (6) \Desktop\AECOM\AECOM Screens\e3g2753-T1\
 Data File : 3g56261.D
 Acq On : 5 Jun 2024 9:32 pm
 Operator : (b) (6)
 Sample : 599-2
 Misc : 0Pxxxxx,E3Gxxxx,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 06 15:33:57 2024

Quant Method : C:\Users\ (b) (6) \Desktop\AECOM SCREENS\AECOM_e3g_TPHEXT.M

Quant Title : 8270C Calibration

QLast Update : Wed May 01 09:46:22 2024

Response via : Initial Calibration

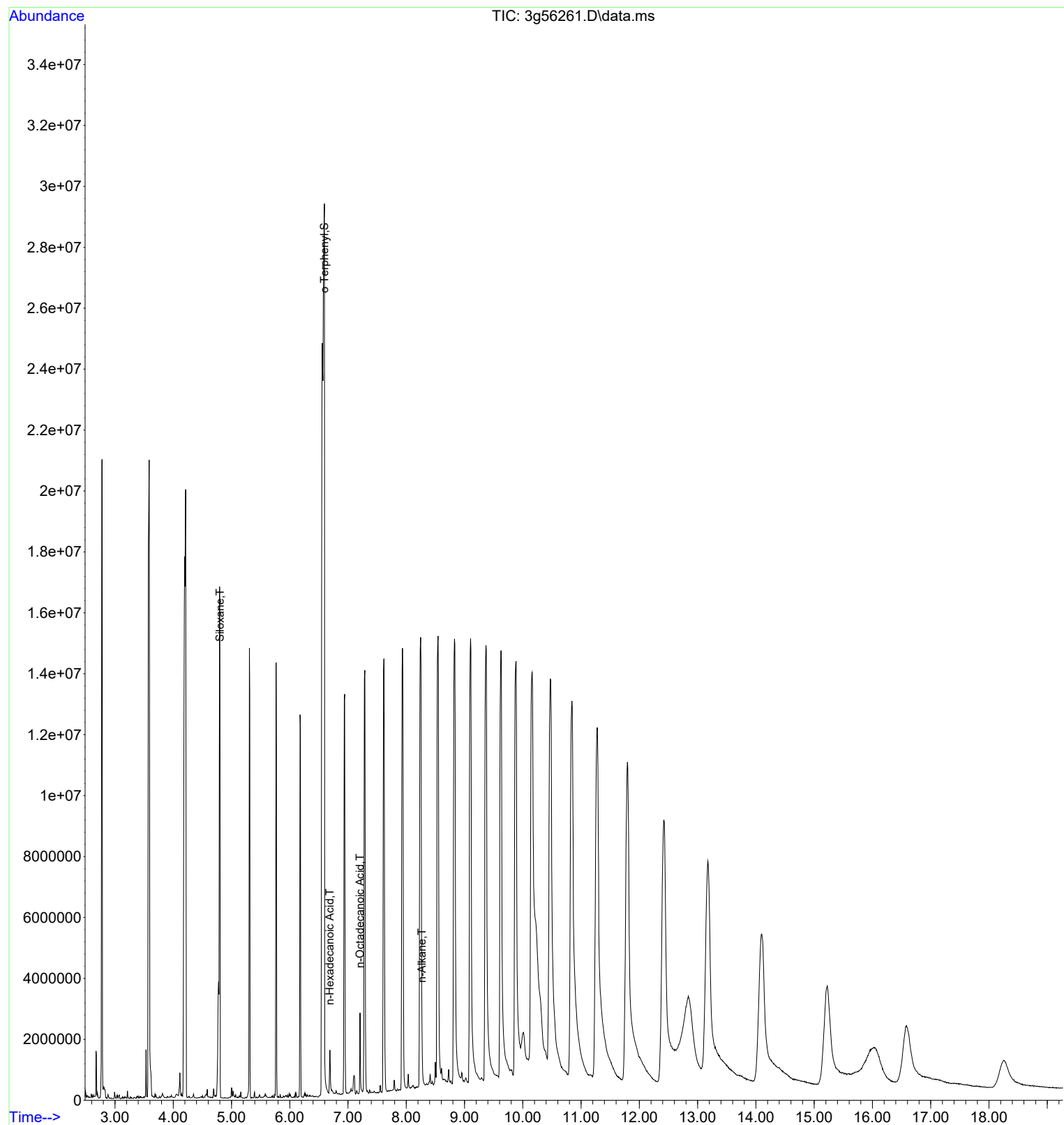
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

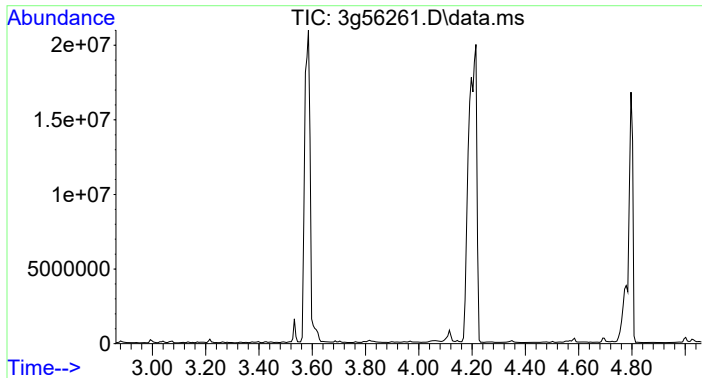
System Monitoring Compounds						
17) o-Terphenyl	6.594	230	16283290m	3480.64	ppm	-1.17
Target Compounds						
						Qvalue
1) Undecane (C11)	0.000		0	N.D.	d	
2) Diethylnaphthalene	0.000		0	N.D.		
3) 1-Methylnaphthalene	0.000		0	N.D.		
4) 1-Ethylpropylbenzene	0.000		0	N.D.	d	
5) Cyclohexane	0.000		0	N.D.		
6) Tridecane (C13)	0.000		0	N.D.	d	
7) Dodecane (C12)	0.000		0	N.D.	d	
8) Sesquiterpanes	0.000		0	N.D.		
9) Benzocyclohexane	0.000		0	N.D.	d	
10) Propylbutylbenzene	0.000		0	N.D.		
11) Cyclic Isoprenoid	0.000		0	N.D.	d	
12) Trimethylbenzene	0.000		0	N.D.	d	
13) Bromo-Xa	0.000		0	N.D.	d	
14) Bromo-Xb	0.000		0	N.D.	d	
15) n-Hexadecanoic Acid	6.688	256	15989m	3.10	ppm	
16) n-Octadecanoic Acid	7.205	284	18555m	3.97	ppm	
18) Bromo-o-Terphenyl	0.000		0	N.D.		
19) Chloro-o-Terphenyl	0.000		0	N.D.		
20) n-Alkane	8.269	57	6384377m	1433.38	ppm	
21) n-Nonane (C9)	0.000		0	N.D.		
22) n-Decane (C10)	0.000		0	N.D.	d	
23) n-Dodecane (C12)	0.000		0	N.D.	d	
24) n-Tetradecane (C14)	0.000		0	N.D.	d	
25) n-Hexadecane (C16)	0.000		0	N.D.	d	
26) n-Octadecane (C18)	0.000		0	N.D.	d	
27) n-Eicosane (C20)	0.000		0	N.D.	d	
28) n-Heneicosane (C21)	0.000		0	N.D.	d	
29) n-Docosane (C22)	0.000		0	N.D.	d	
30) n-Tricosane (C23)	0.000		0	N.D.	d	
31) n-Tetracosane (C24)	0.000		0	N.D.	d	
32) n-Pentacosane (C25)	0.000		0	N.D.	d	
33) n-Hexacosane (C26)	0.000		0	N.D.	d	
34) n-Heptacosane (C27)	0.000		0	N.D.	d	
35) n-Octacosane (C28)	0.000		0	N.D.	d	
36) n-Nonacosane (C29)	0.000		0	N.D.	d	
37) n-Triacontane (C30)	0.000		0	N.D.	d	
38) n-Doatriacontane (C32)	0.000		0	N.D.		
39) n-Tetratriacontane (C34)	0.000		0	N.D.	d	
40) n-Hexatriacontane (C36)	0.000		0	N.D.		
41) n-Octatriacontane (C38)	0.000		0	N.D.	d	
42) n-Tetracontane (C40)	0.000		0	N.D.	d	
43) Siloxane	4.802	429	38254898m	5579.18	ppm	
44) Butyl benzyl phthalate	0.000		0	N.D.	d	
45) Bis(2-ethylhexyl)phtha...	0.000		0	N.D.	d	
46) Di-n-octylphthalate	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\Users\ (b) (6) \Desktop\AECOM\AECOM Screens\e3g2753-T1\
Data File : 3g56261.D
Acq On : 5 Jun 2024 9:32 pm
Operator : (b) (6)
Sample : 599-2
Misc : 0Pxxxxx,E3Gxxxx,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 06 15:33:57 2024
Quant Method : C:\Users\ (b) (6) \Desktop\AECOM SCREENS\AECOM_e3g_TPHEXT.M
Quant Title : 8270C Calibration
QLast Update : Wed May 01 09:46:22 2024
Response via : Initial Calibration



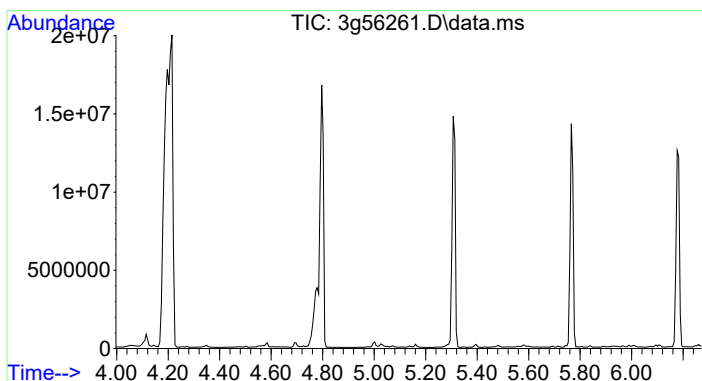
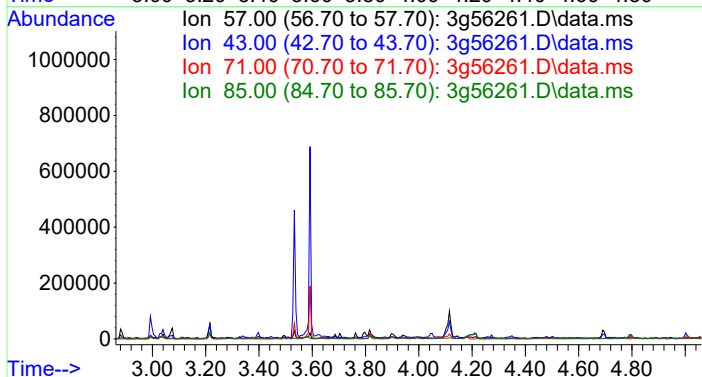


#1
 Undecane (C11)
 Concen: N.D.
 Expected RT: 3.96 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 57

Sig	Exp Ratio
57	100
43	50.0
71	0.0
85	0.0

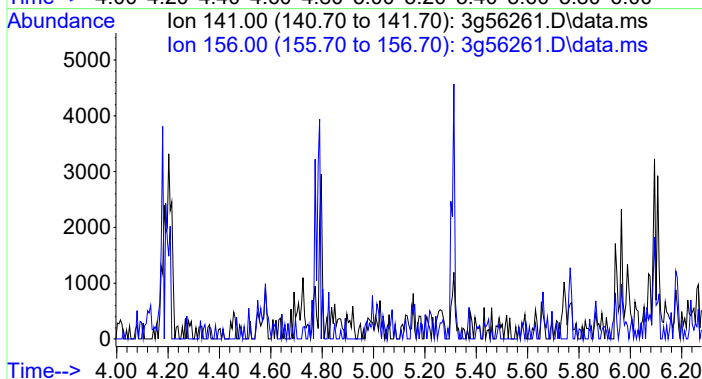


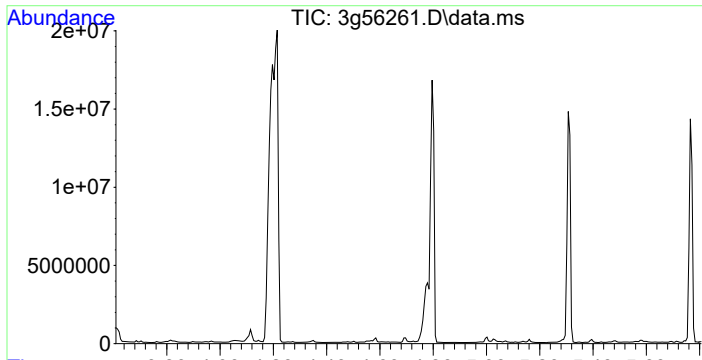
#2
 Diethylnaphthalene
 Concen: N.D.
 Expected RT: 5.10 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 141

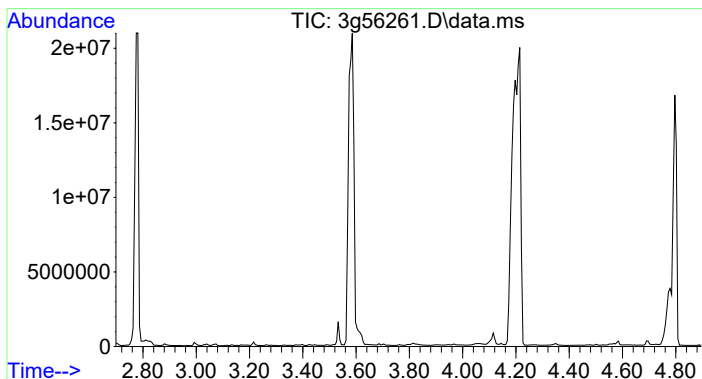
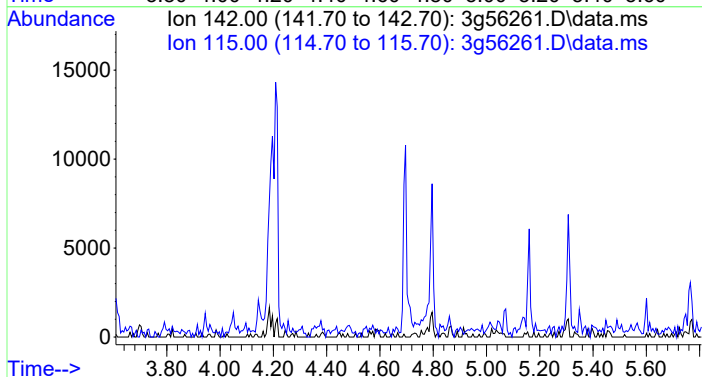
Sig	Exp Ratio
141	100
156	50.0





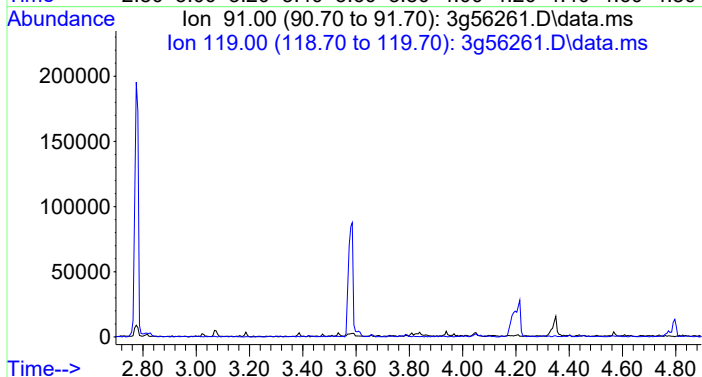
#3
1-Methylnaphthalene
Concen: N.D.
Expected RT: 4.71 min
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

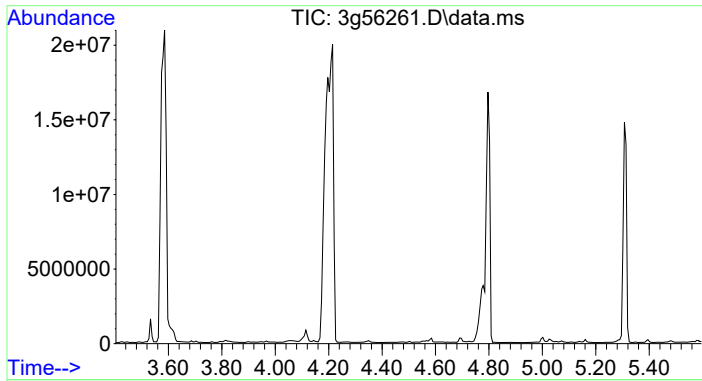
Tgt Ion: 142
Sig Exp Ratio
142 100
115 50.0



#4
1-Ethylpropylbenzene
Concen: N.D.
Expected RT: 3.80 min
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

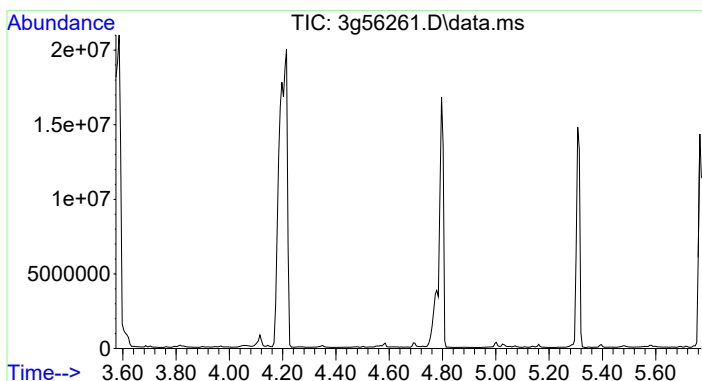
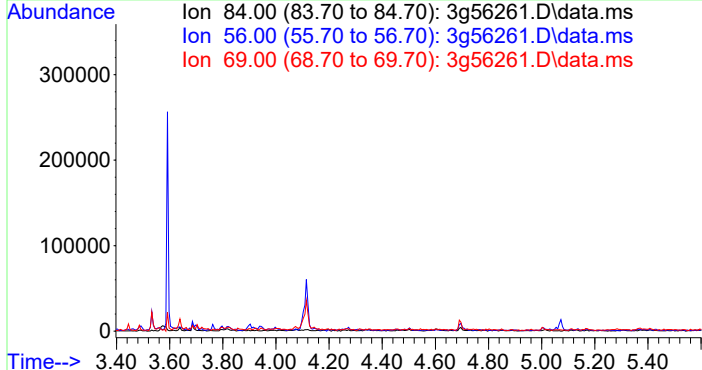
Tgt Ion: 91
Sig Exp Ratio
91 100
119 50.0





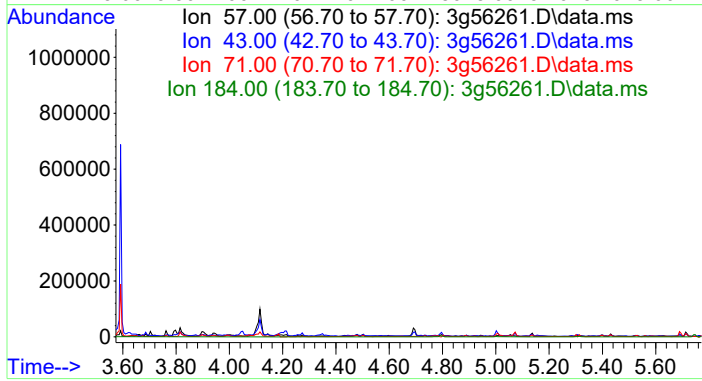
#5
 Cyclohexane
 Concen: N.D.
 Expected RT: 4.50 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

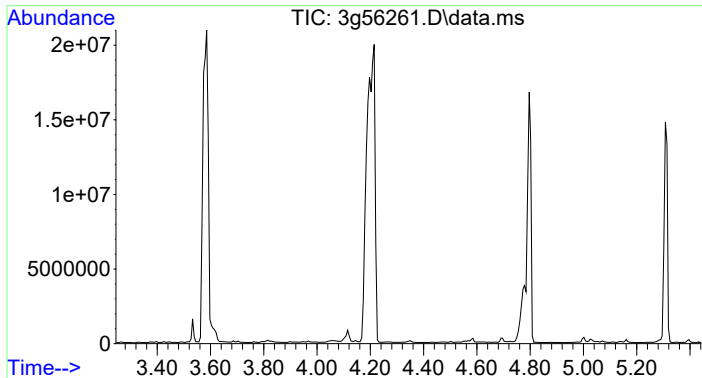
Tgt Ion:	84
Sig	Exp Ratio
84	100
56	0.0
69	0.0



#6
 Tridecane (C13)
 Concen: N.D.
 Expected RT: 4.67 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
184	0.0



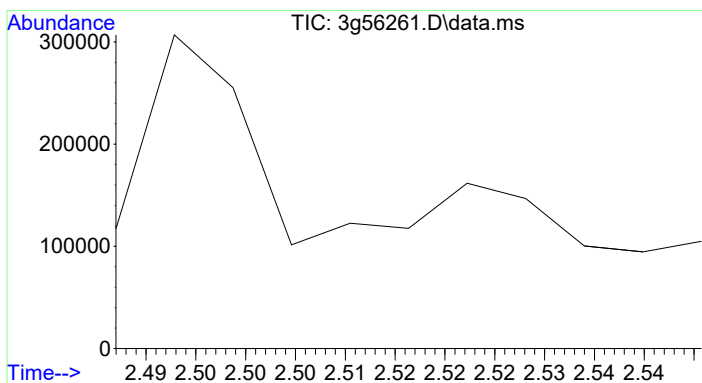
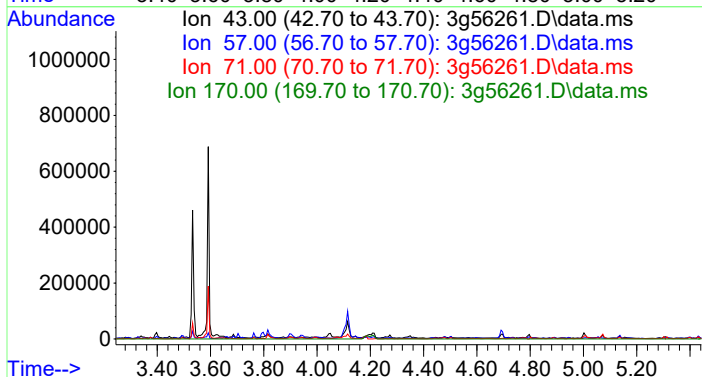


#7
Dodecane (C12)
Concen: N.D.
Expected RT: 4.34 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 43

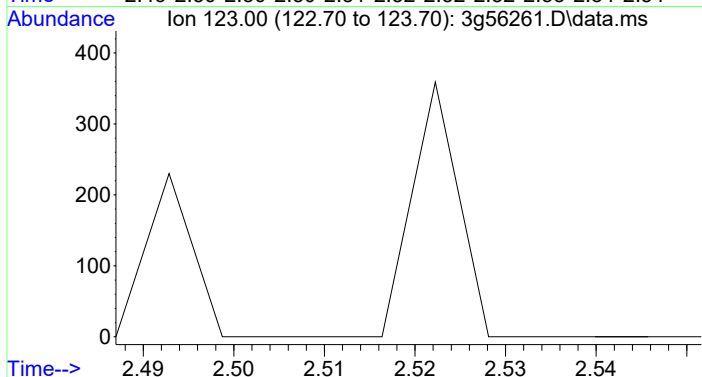
Sig	Exp Ratio
43	100
57	50.0
71	50.0
170	50.0

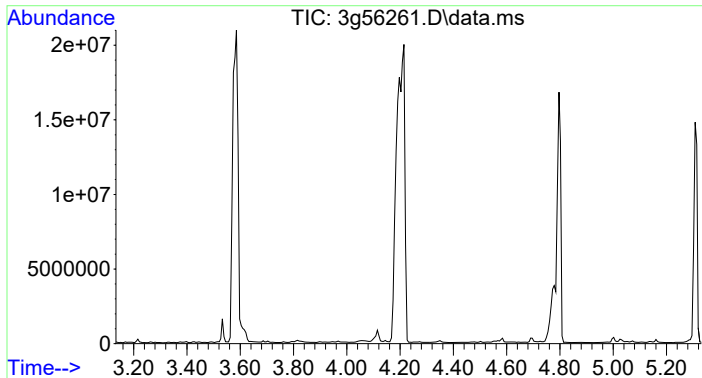


#8
Sesquiterpanes
Concen: N.D.
Expected RT: 1.45 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 123

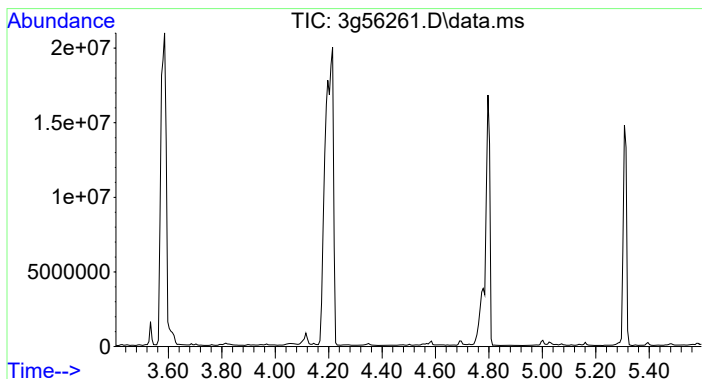
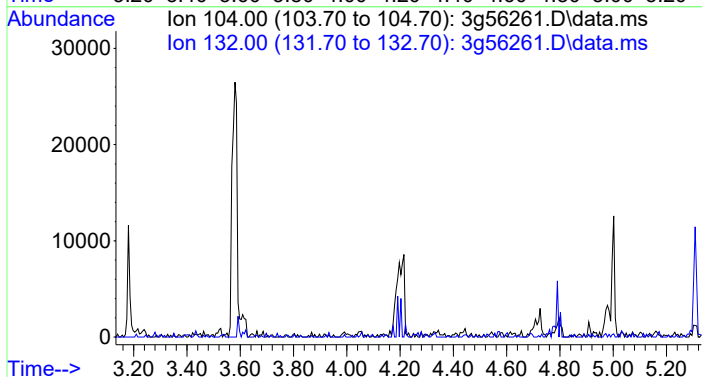




#9
Benzocyclohexane
Concen: N.D.
Expected RT: 4.23 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

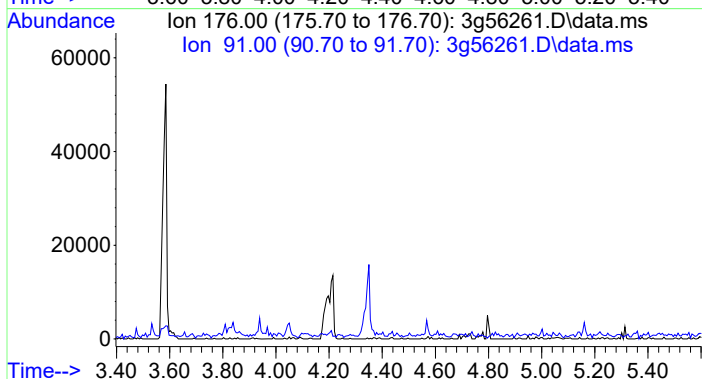
Tgt Ion	104
Sig	Exp Ratio
104	100
132	0.0

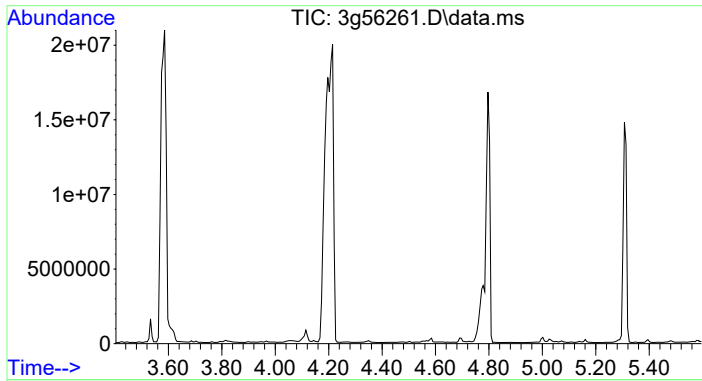


#10
Propylbutylbenzene
Concen: N.D.
Expected RT: 4.50 min

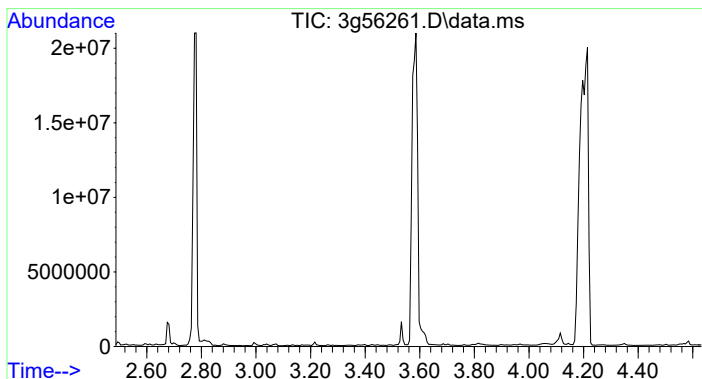
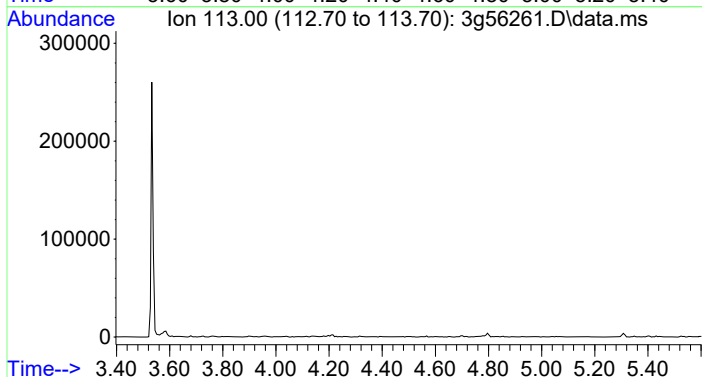
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion	176
Sig	Exp Ratio
176	100
91	0.0



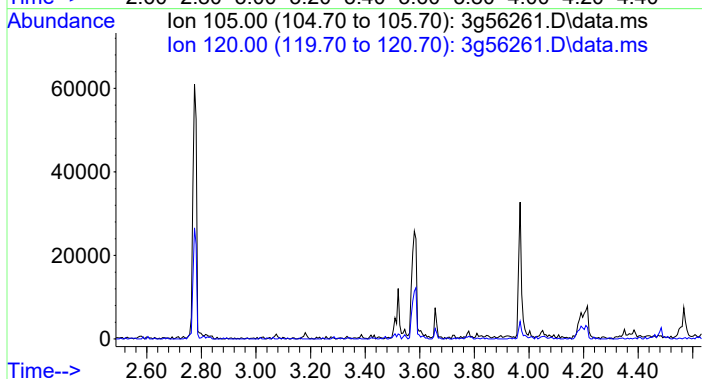


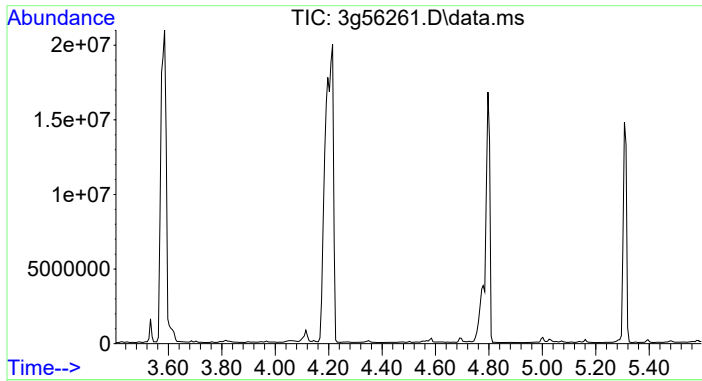
#11
 Cyclic Isoprenoid
 Concen: N.D.
 Expected RT: 4.50 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm
 Tgt Ion: 113



#12
 Trimethylbenzene
 Concen: N.D.
 Expected RT: 3.53 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm
 Tgt Ion: 105

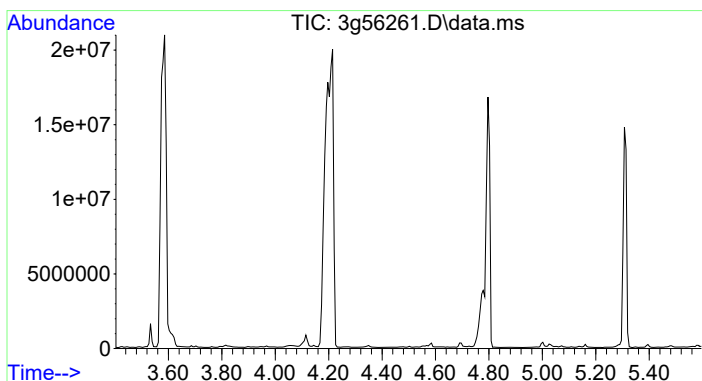
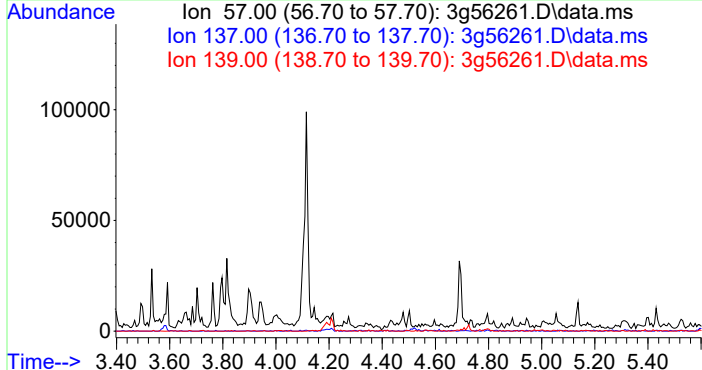
Sig	Exp Ratio
105	100
120	0.0





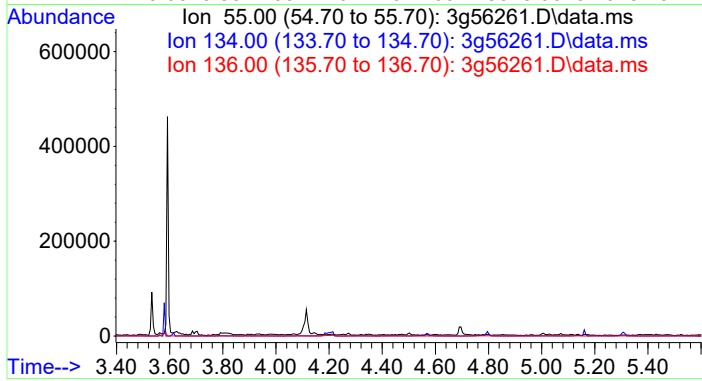
#13
 Bromo-Xa
 Concen: N.D.
 Expected RT: 4.50 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

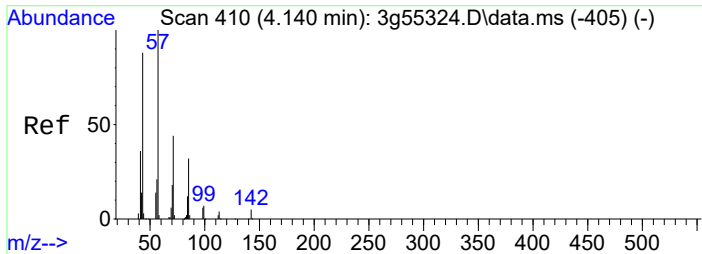
Tgt Ion:	57
Sig	Exp Ratio
57	100
137	0.0
139	0.0



#14
 Bromo-Xb
 Concen: N.D.
 Expected RT: 4.50 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

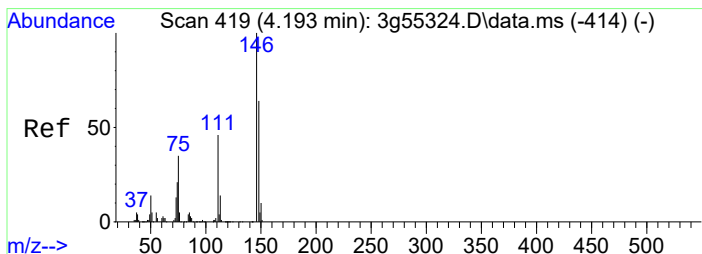
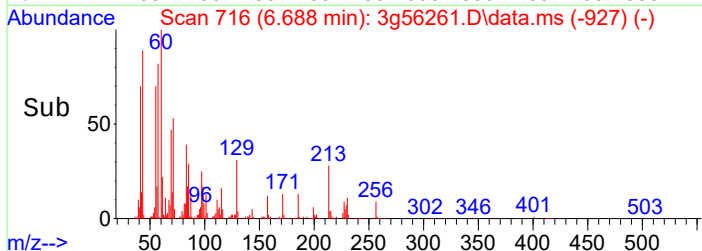
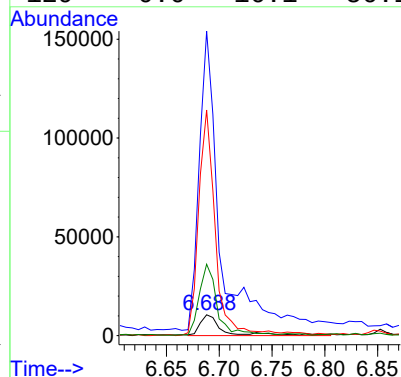
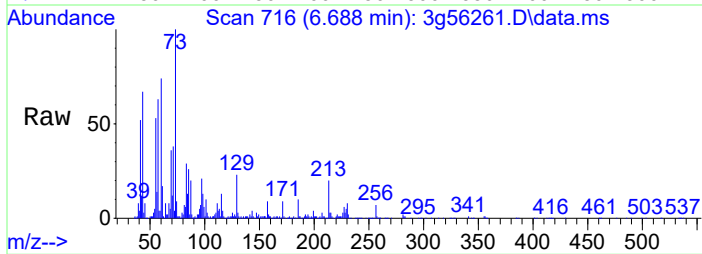
Tgt Ion:	55
Sig	Exp Ratio
55	100
134	0.0
136	0.0





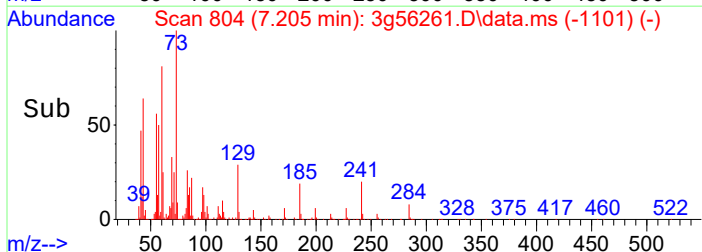
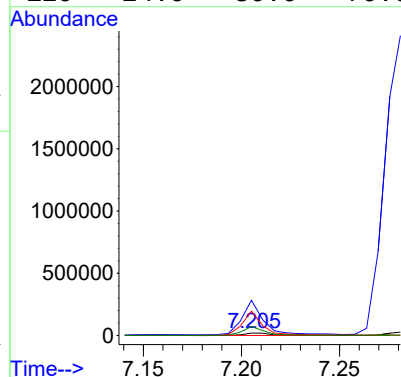
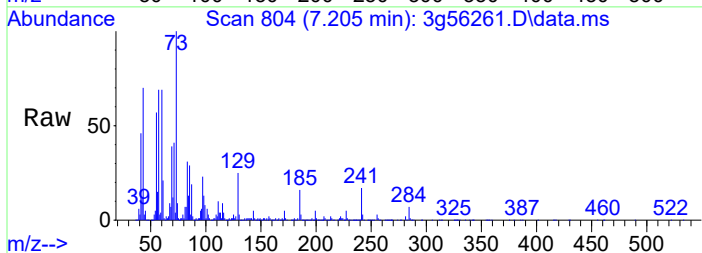
#15
n-Hexadecanoic Acid
Concen: 3.10 ppm m
RT: 6.688 min Scan# 716
Delta R.T. -1.339 min
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

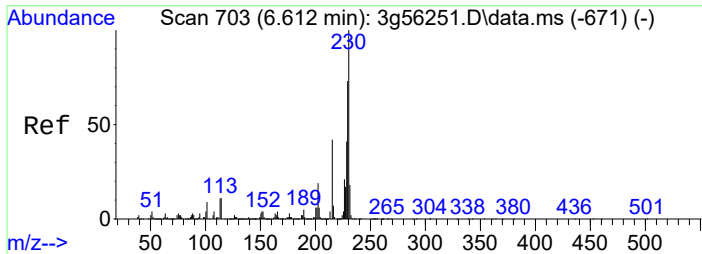
Tgt Ion	256	Resp	15989
Ion Ratio	Lower	Upper	
256	100		
73	0.0	97.8	137.8#
60	0.0	30.7	70.7#
129	0.0	16.1	56.1#



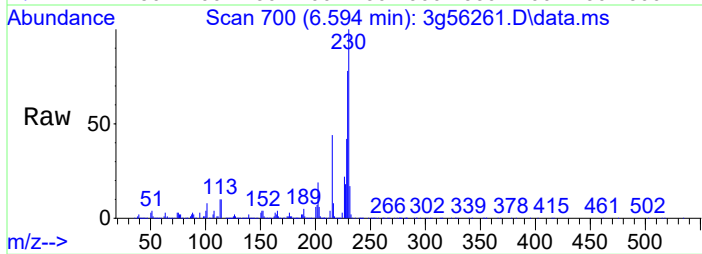
#16
n-Octadecanoic Acid
Concen: 3.97 ppm m
RT: 7.205 min Scan# 804
Delta R.T. -1.844 min
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion	284	Resp	18555
Ion Ratio	Lower	Upper	
284	100		
73	20539.0	42.7	82.7#
60	18.0	26.4	66.4#
129	24.9	30.0	70.0#

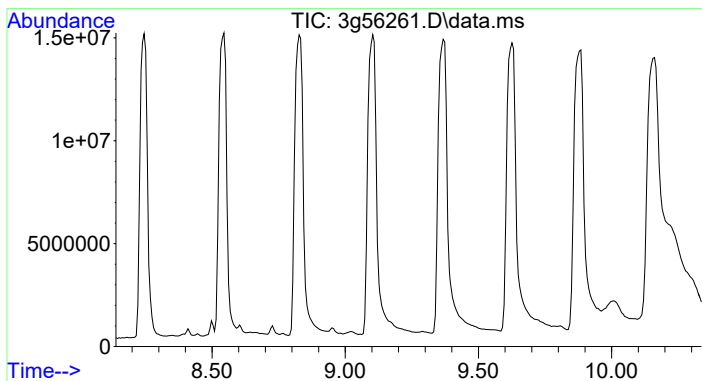
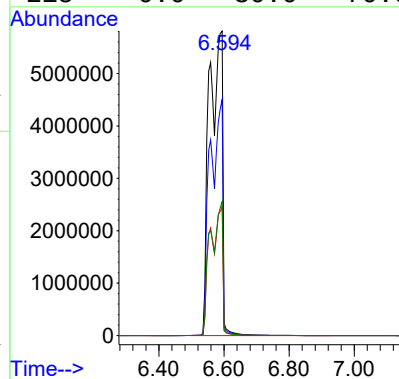
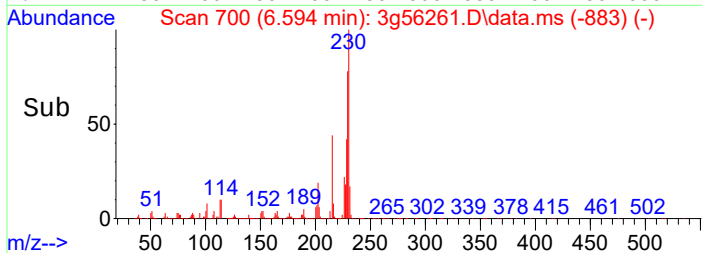




#17
 o-Terphenyl
 Concen: 3480.64 ppm m
 RT: 6.594 min Scan# 700
 Delta R.T. -1.174 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

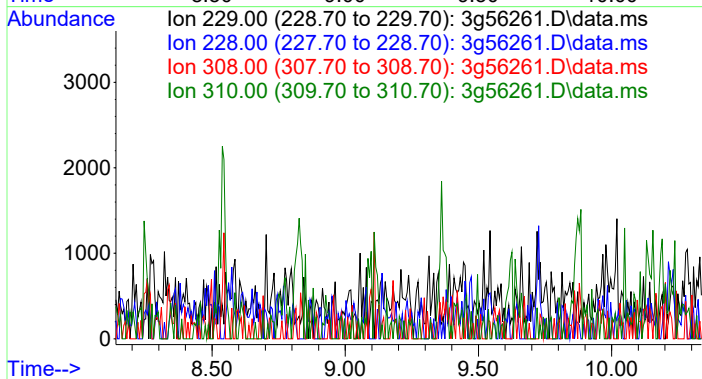


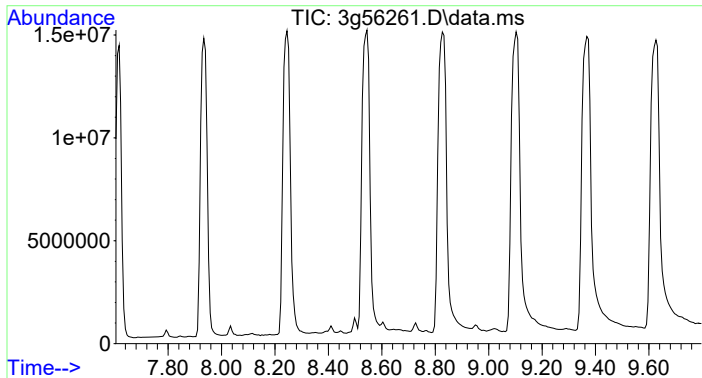
Tgt Ion:	230	Resp:	16283290
Ion	Ratio	Lower	Upper
230	100		
229	0.0	43.0	83.0#
228	0.0	27.3	67.3#
215	0.0	30.0	70.0#



#18
 Bromo-o-Terphenyl
 Concen: N.D.
 Expected RT: 9.24 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion:	229
Sig	Exp Ratio
229	100
228	135.4
308	79.5
310	0.0

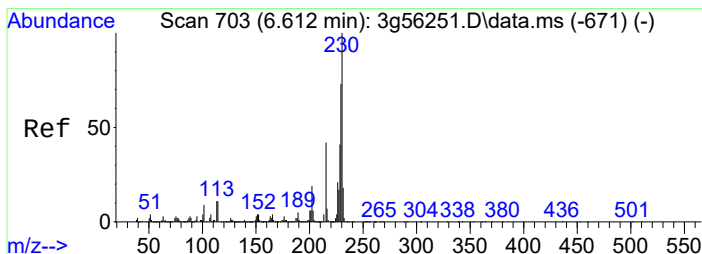
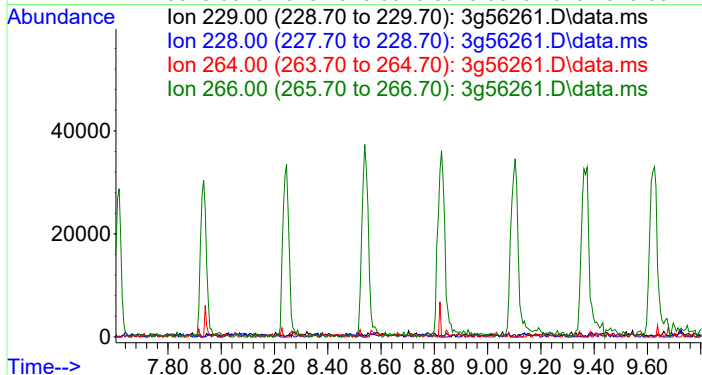




#19
Chloro-o-Terphenyl
Concen: N.D.
Expected RT: 8.70 min

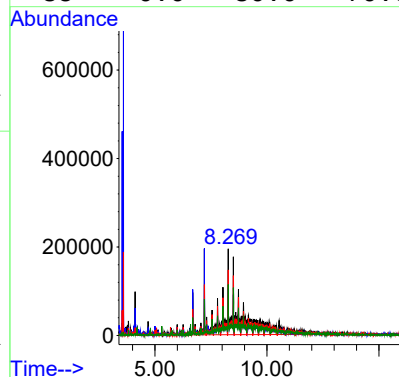
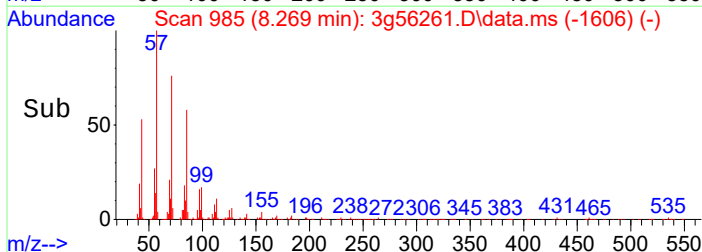
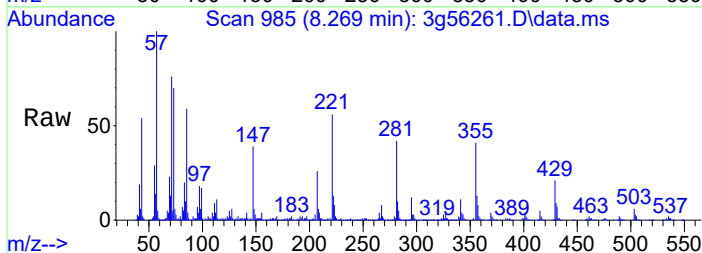
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

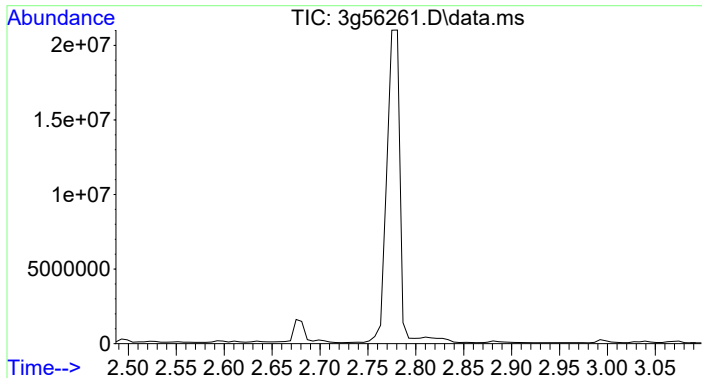
Tgt Ion: 229
Sig Exp Ratio
229 100
228 63.1
264 48.7
266 0.0



#20
n-Alkane
Concen: 1433.38 ppm m
RT: 8.269 min Scan# 985
Delta R.T. -3.747 min
Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 57 Resp: 6384377
Ion Ratio Lower Upper
57 100
43 0.0 30.0 70.0#
71 0.0 30.0 70.0#
85 0.0 30.0 70.0#

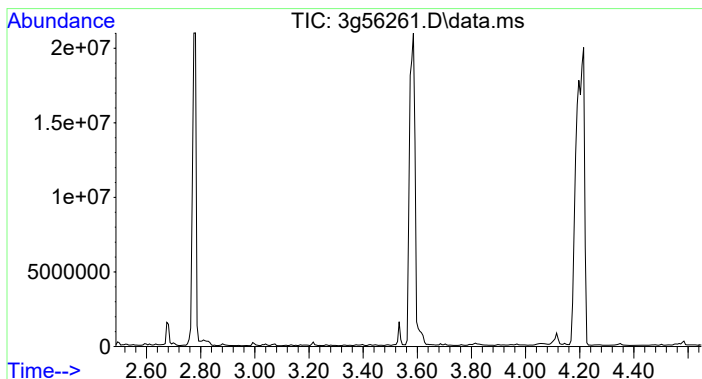
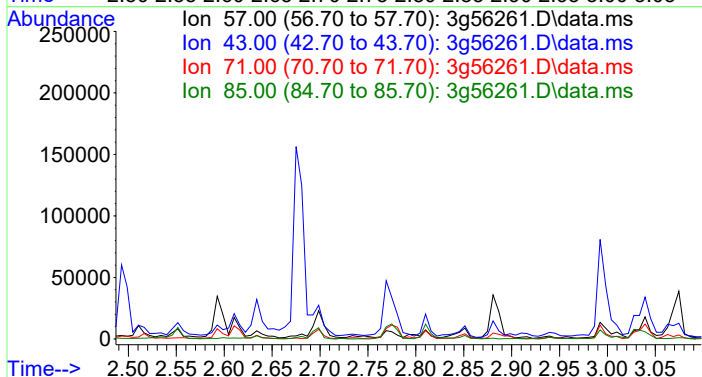




#21
 n-Nonane (C9)
 Concen: N.D.
 Expected RT: 2.00 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

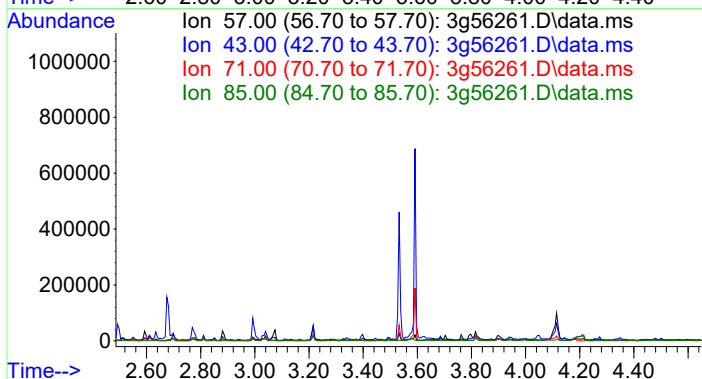
Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0

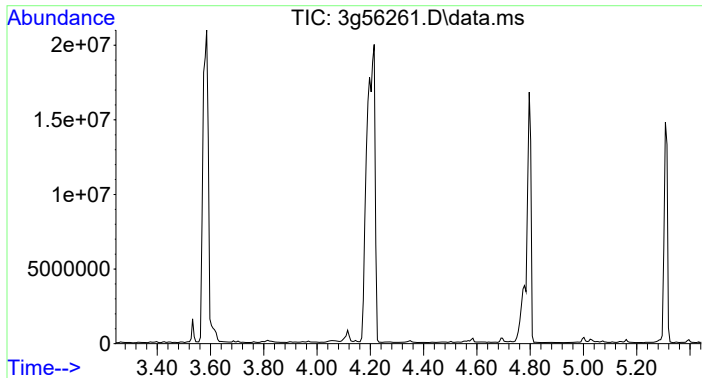


#22
 n-Decane (C10)
 Concen: N.D.
 Expected RT: 3.55 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0

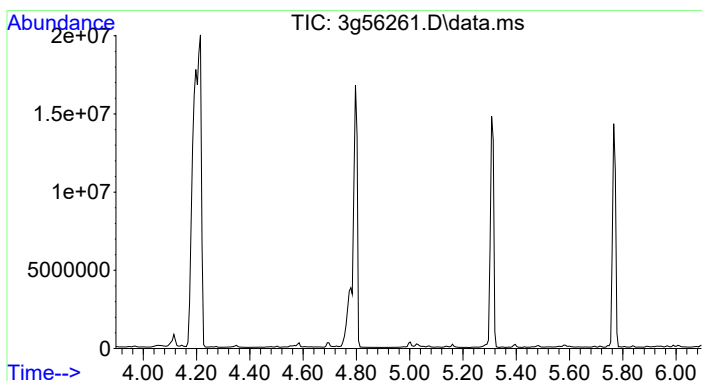
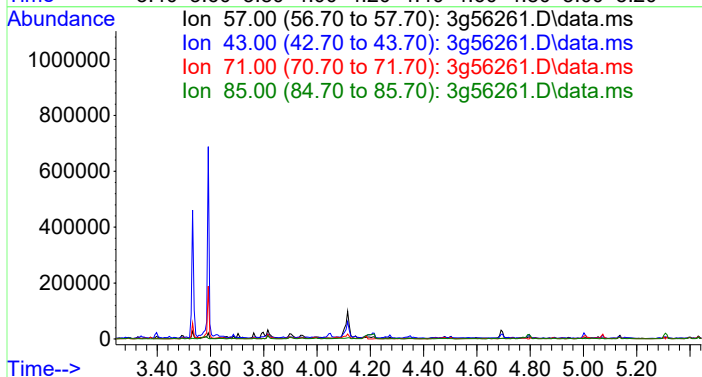




#23
 n-Dodecane (C12)
 Concen: N.D.
 Expected RT: 4.34 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

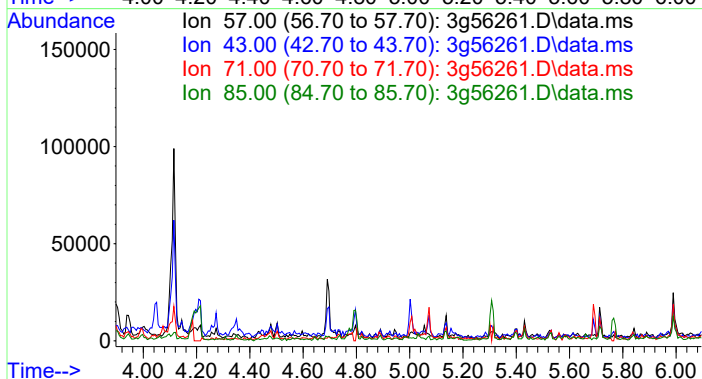
Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0

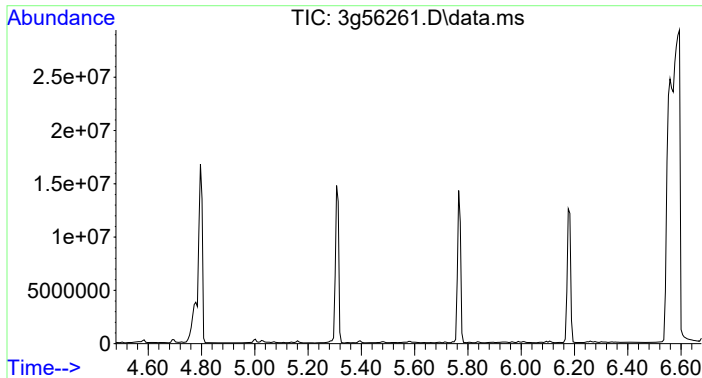


#24
 n-Tetradecane (C14)
 Concen: N.D.
 Expected RT: 5.00 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0

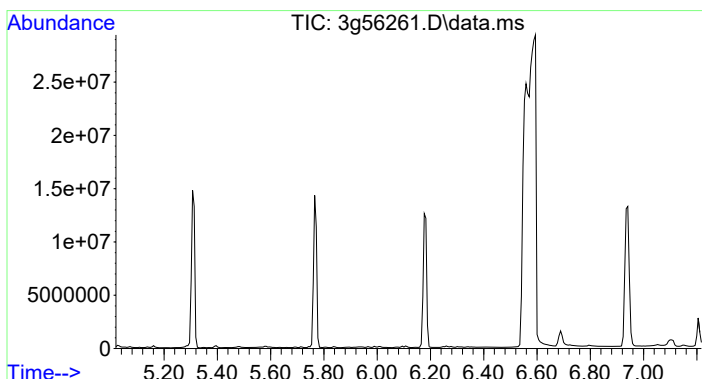
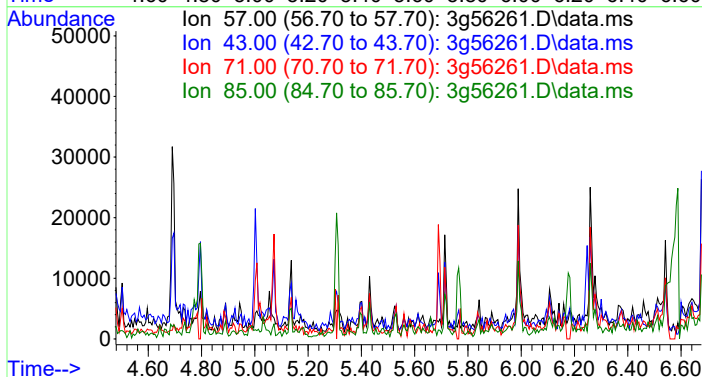




#25
n-Hexadecane (C16)
Concen: N.D.
Expected RT: 5.58 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

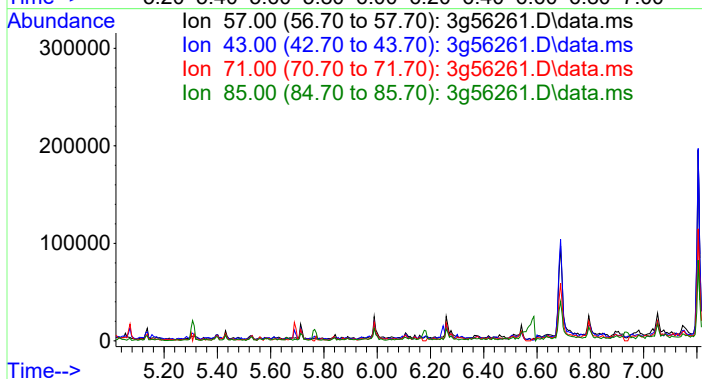
Tgt Ion	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

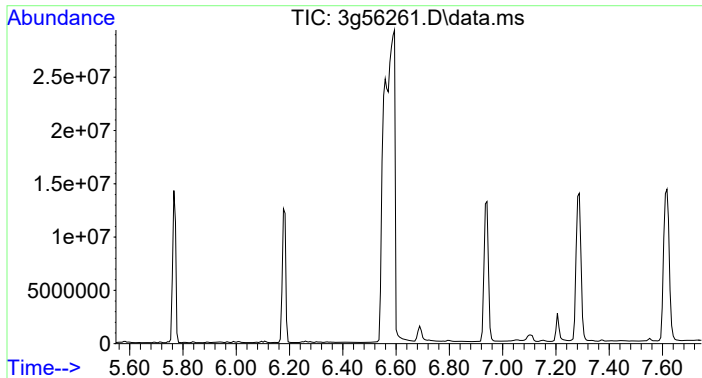


#26
n-Octadecane (C18)
Concen: N.D.
Expected RT: 6.12 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

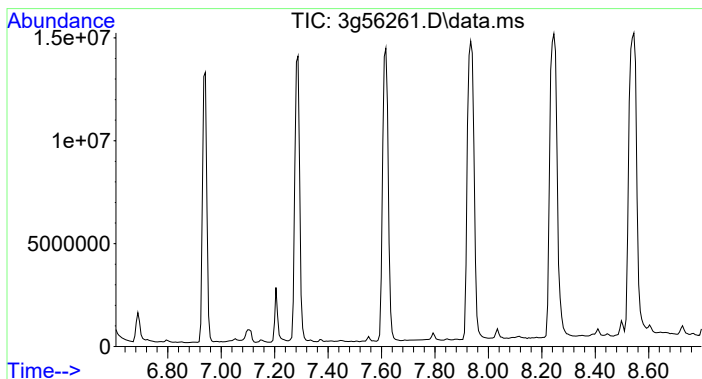
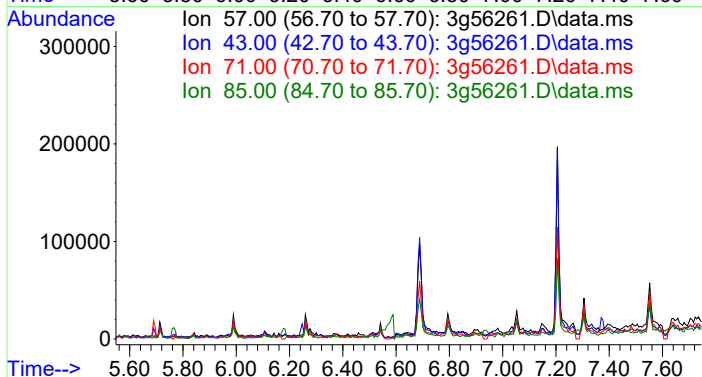




#27
n-Eicosane (C20)
Concen: N.D.
Expected RT: 6.65 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

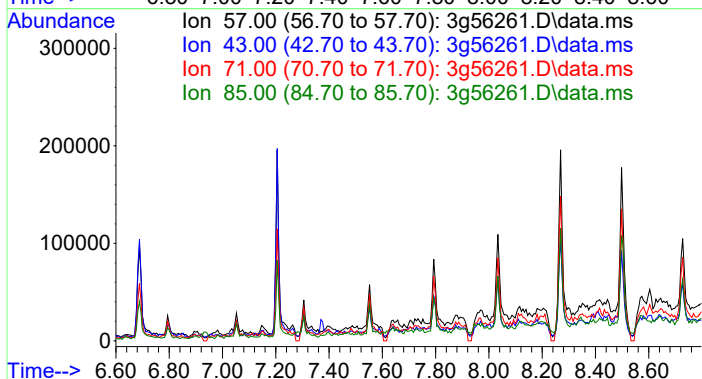
Tgt Ion	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

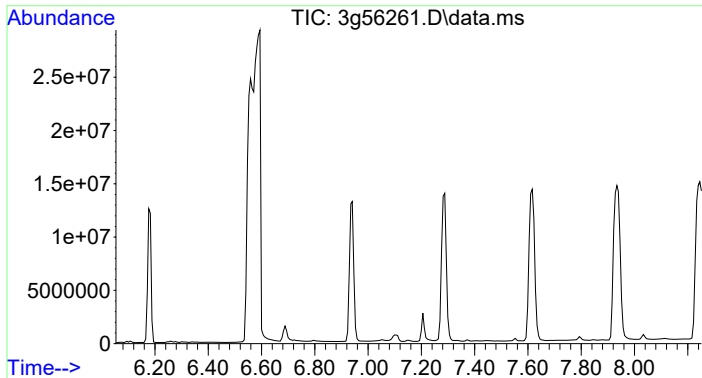


#28
n-Heneicosane (C21)
Concen: N.D.
Expected RT: 7.70 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

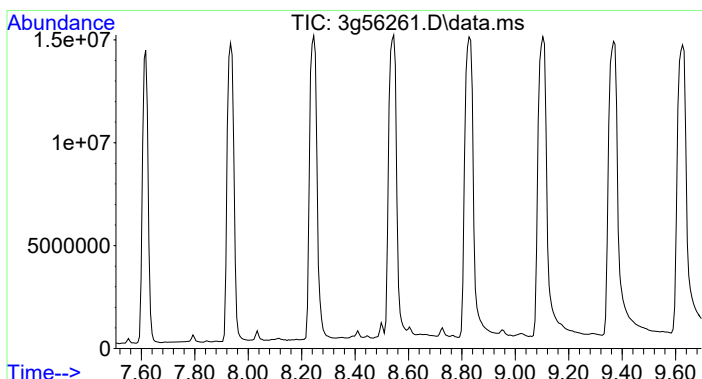
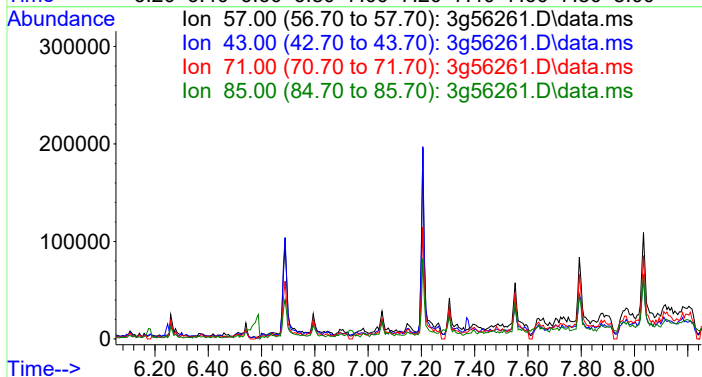




#29
n-Docosane (C22)
Concen: N.D.
Expected RT: 7.15 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

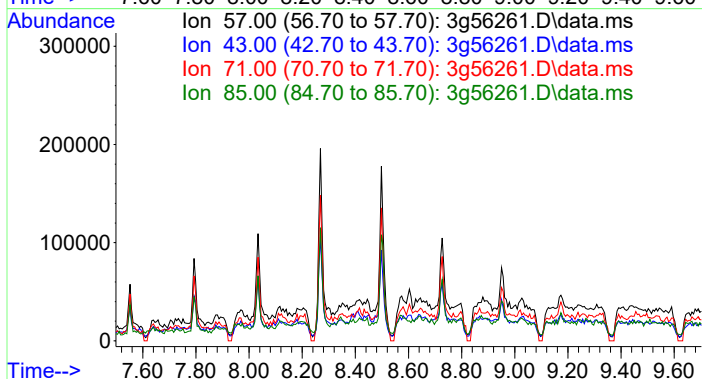
Tgt Ion: 57
Sig Exp Ratio
57 100
43 0.0
71 0.0
85 0.0

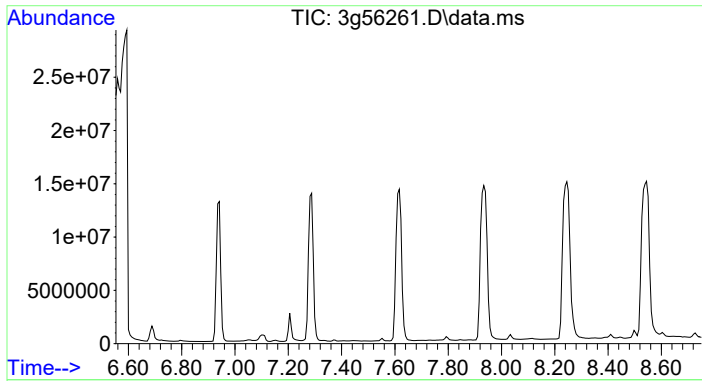


#30
n-Tricosane (C23)
Concen: N.D.
Expected RT: 8.60 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 57
Sig Exp Ratio
57 100
43 0.0
71 0.0
85 0.0

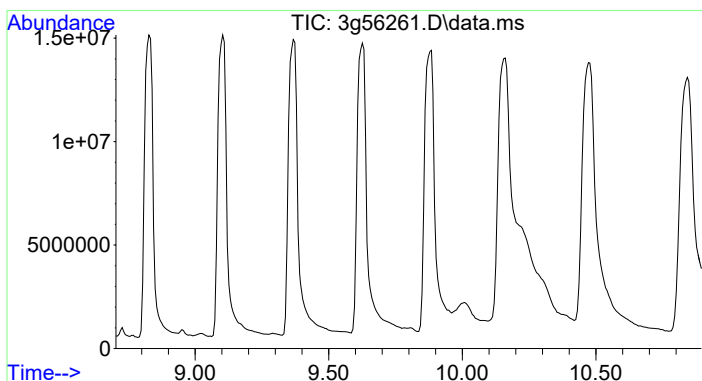
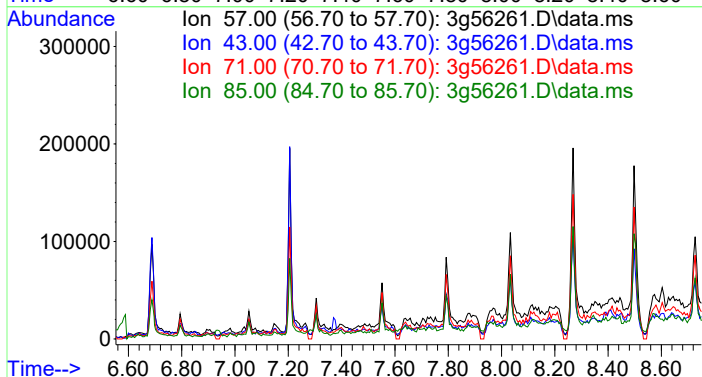




#31
 n-Tetracosane (C24)
 Concen: N.D.
 Expected RT: 7.65 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

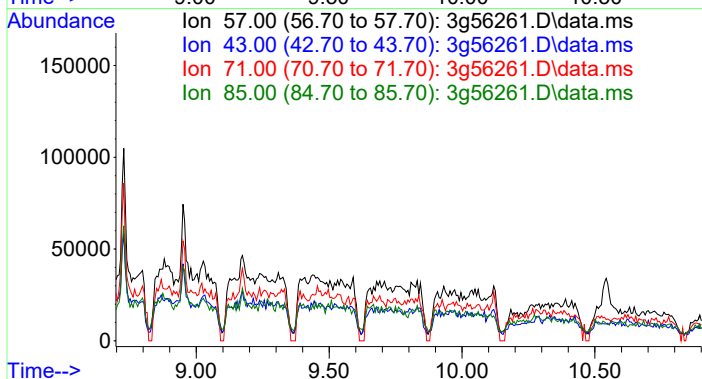
Tgt Ion	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

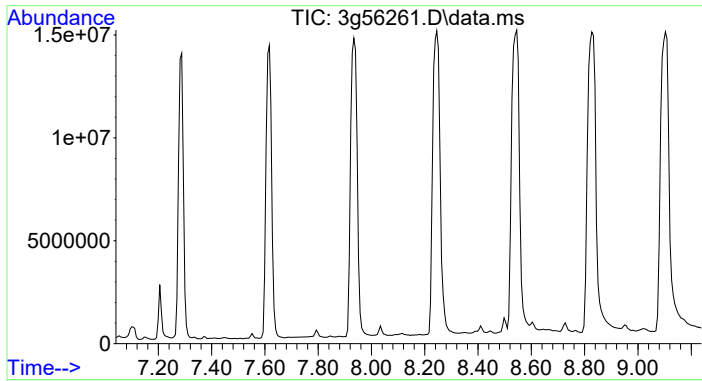


#32
 n-Pentacosane (C25)
 Concen: N.D.
 Expected RT: 9.80 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

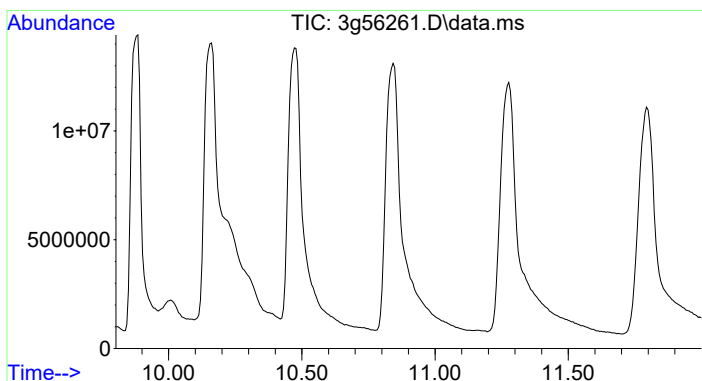
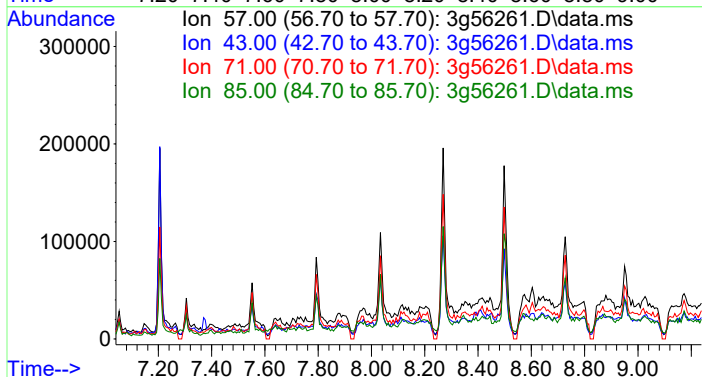




#33
n-Hexacosane (C26)
Concen: N.D.
Expected RT: 8.14 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

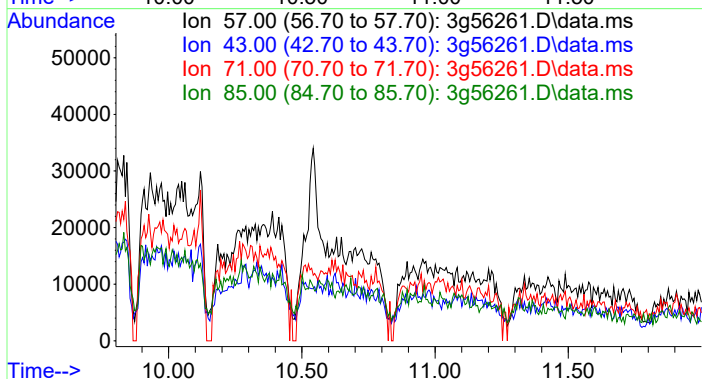
Tgt Ion: 57
Sig Exp Ratio
57 100
43 0.0
71 0.0
85 0.0

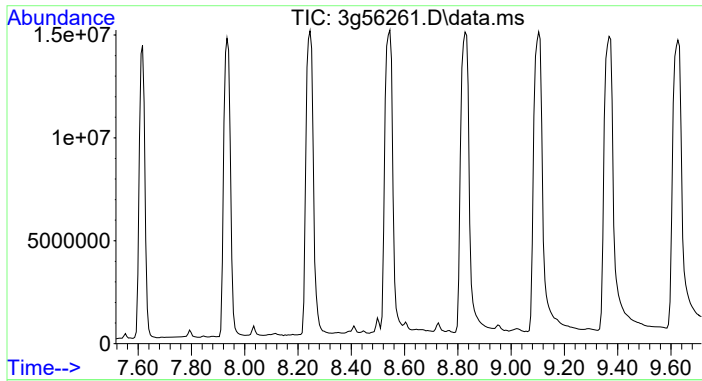


#34
n-Heptacosane (C27)
Concen: N.D.
Expected RT: 10.90 min

Lab File: 3g56261.D
Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 57
Sig Exp Ratio
57 100
43 0.0
71 0.0
85 0.0

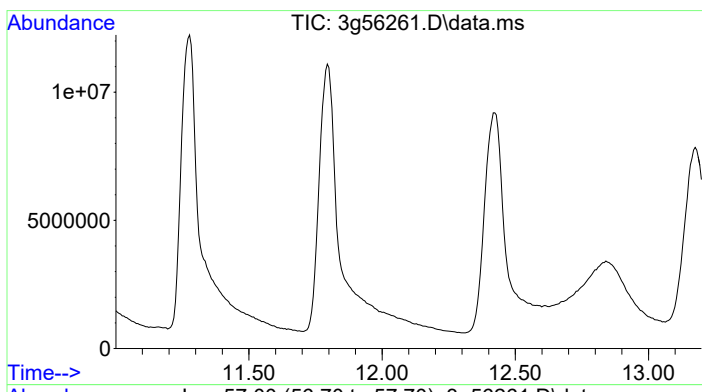
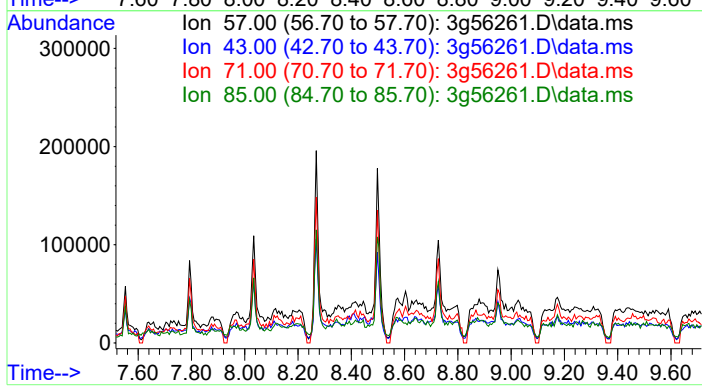




#35
 n-Octacosane (C28)
 Concen: N.D.
 Expected RT: 8.62 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

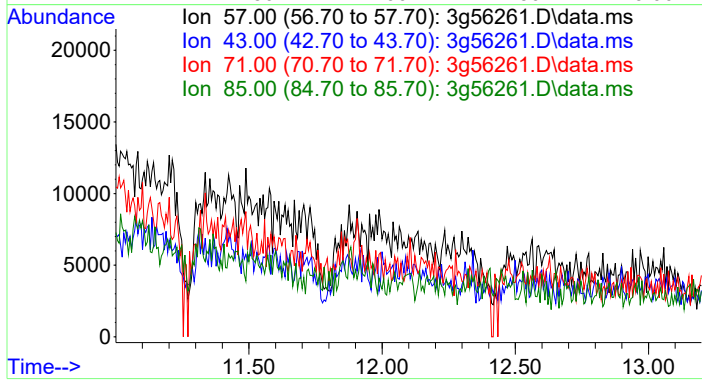
Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

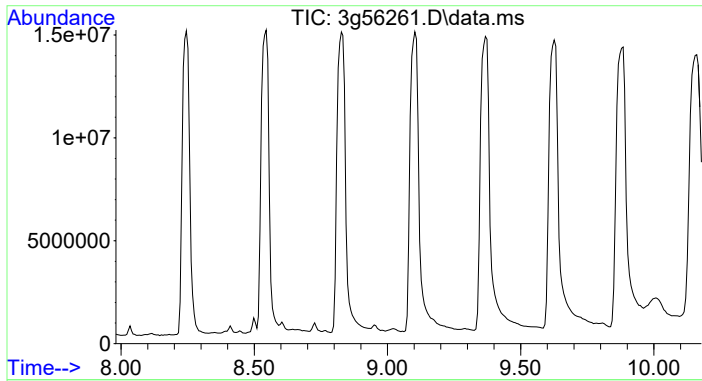


#36
 n-Nonacosane (C29)
 Concen: N.D.
 Expected RT: 12.10 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

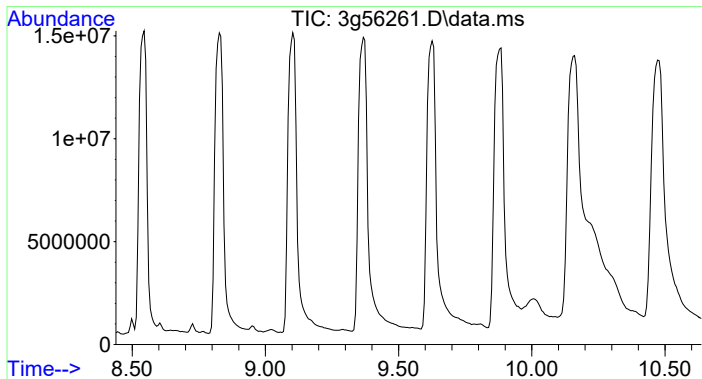
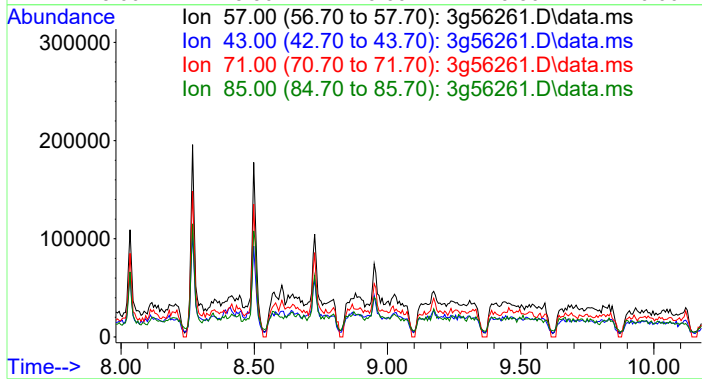
Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0





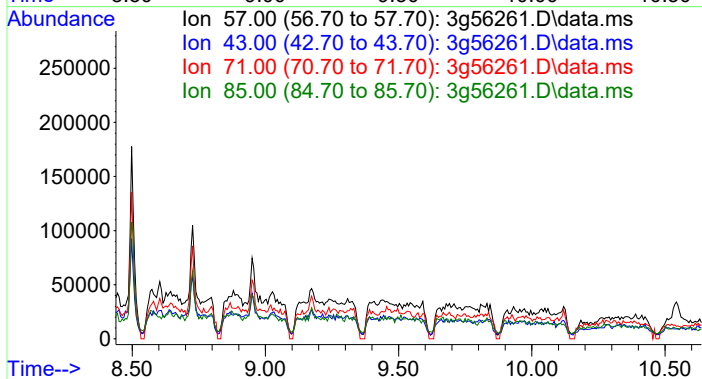
#37
 n-Triacontane (C30)
 Concen: N.D.
 Expected RT: 9.08 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

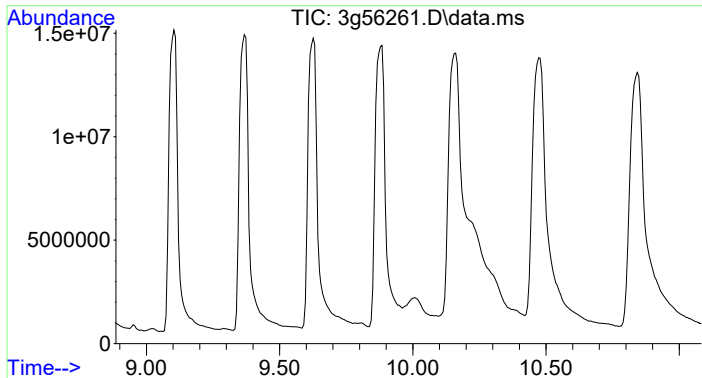
Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0



#38
 n-Doatriacontane (C32)
 Concen: N.D.
 Expected RT: 9.54 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

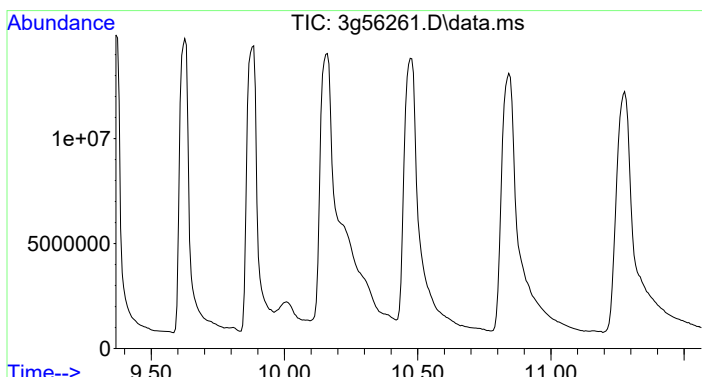
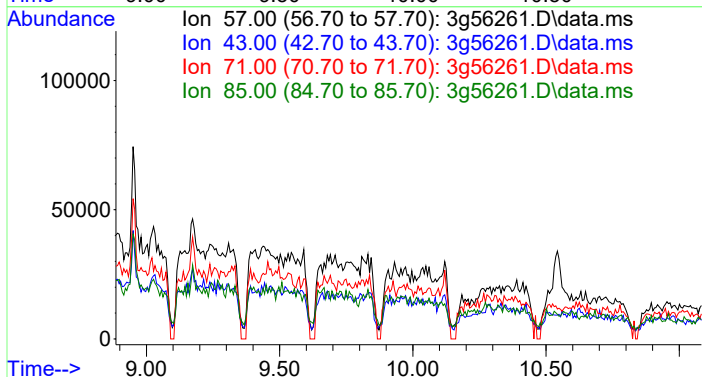




#39
 n-Tetratriacontane (C34)
 Concen: N.D.
 Expected RT: 9.98 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

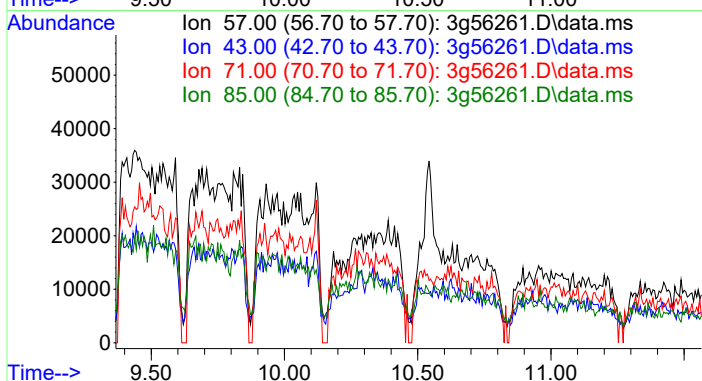
Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0

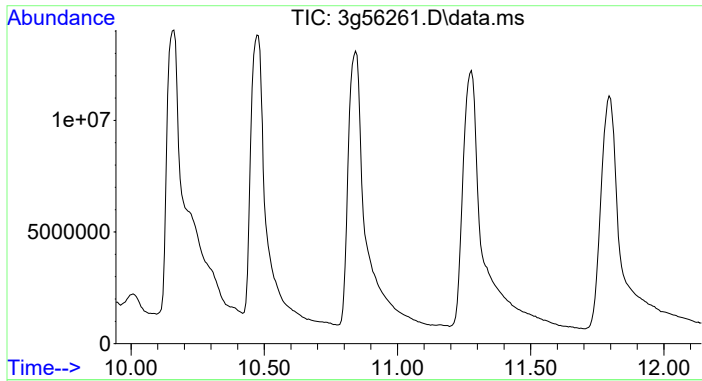


#40
 n-Hexatriacontane (C36)
 Concen: N.D.
 Expected RT: 10.47 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

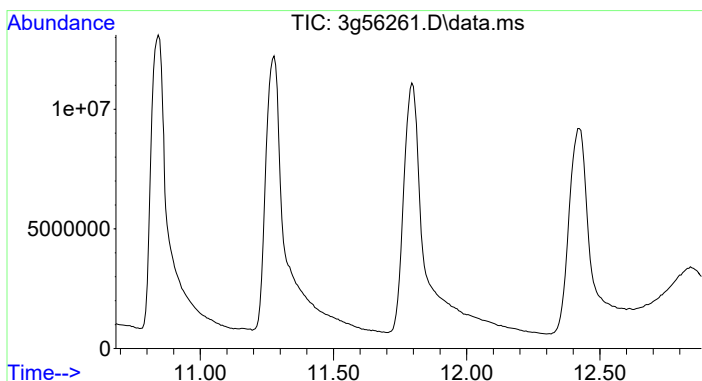
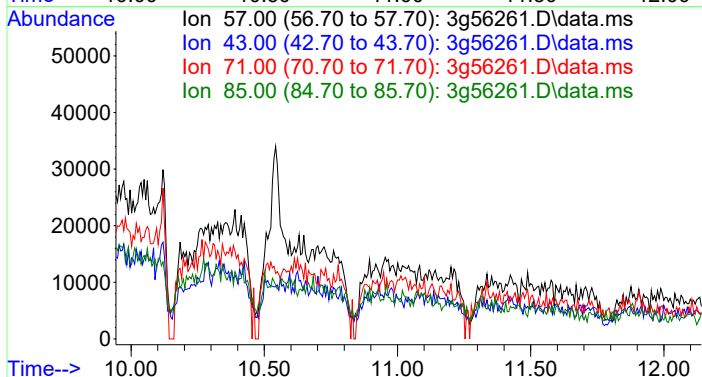
Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0





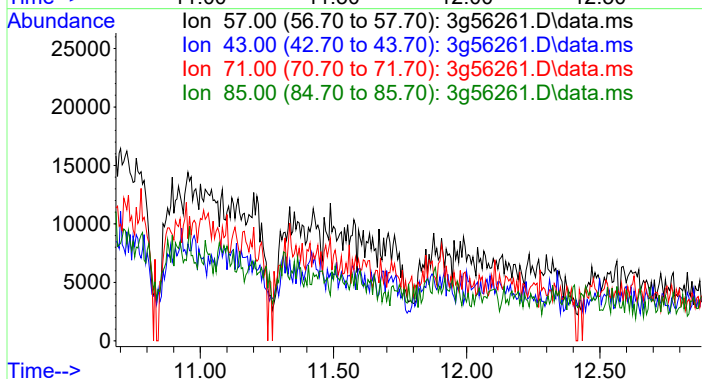
#41
 n-Octatriacontane (C38)
 Concen: N.D.
 Expected RT: 11.04 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

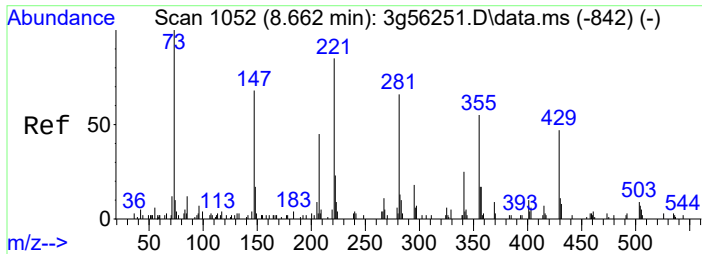
Tgt Ion	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0



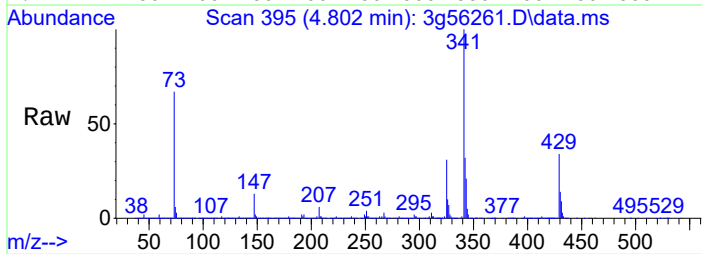
#42
 n-Tetracontane (C40)
 Concen: N.D.
 Expected RT: 11.78 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0



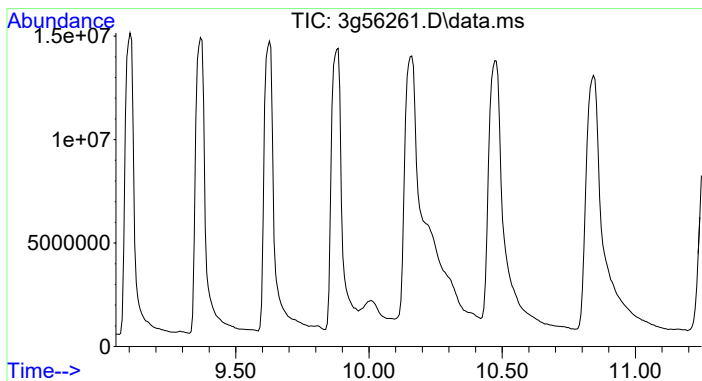
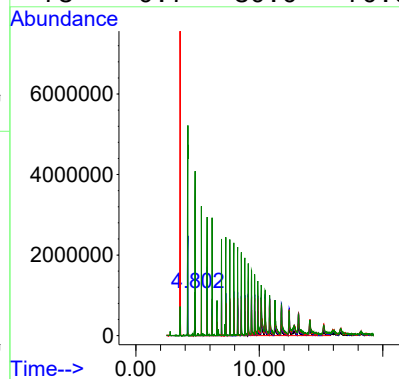
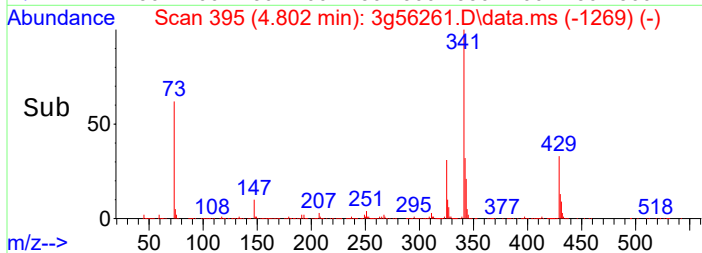


#43
 Siloxane
 Concen: 5579.18 ppm m
 RT: 4.802 min Scan# 395
 Delta R.T. -5.234 min
 Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm



Tgt Ion: 429 Resp: 38254898

Ion	Ratio	Lower	Upper
429	100		
355	0.5	30.0	70.0#
281	0.6	30.0	70.0#
73	0.7	30.0	70.0#

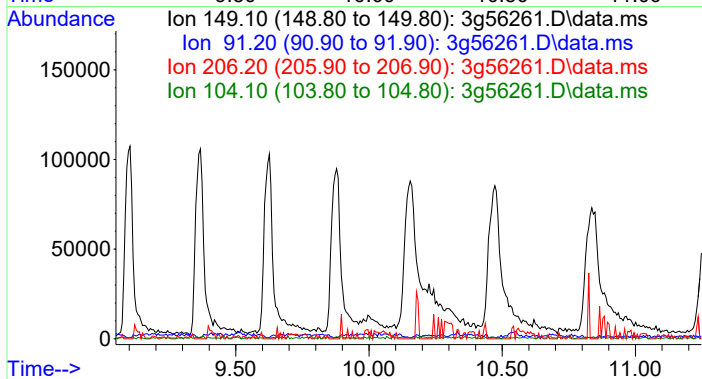


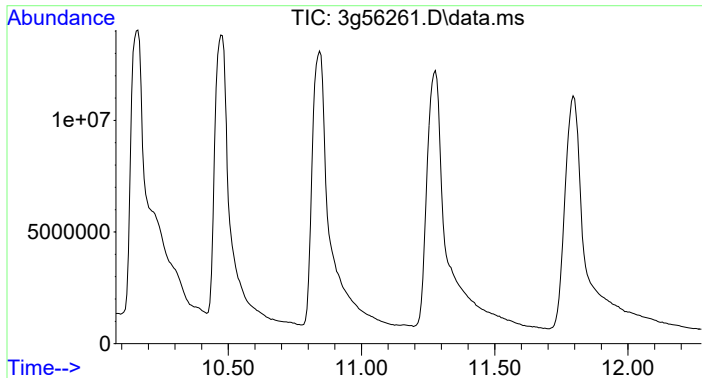
#44
 Butyl benzyl phthalate
 Concen: N.D.
 Expected RT: 10.15 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion: 149

Sig	Exp Ratio
149	100
91	97.4
206	28.9
104	19.1

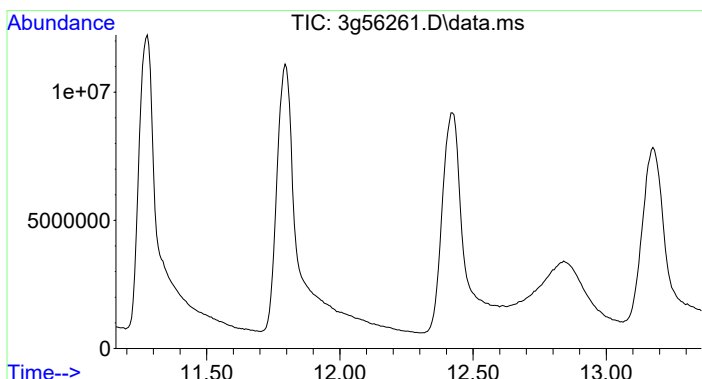
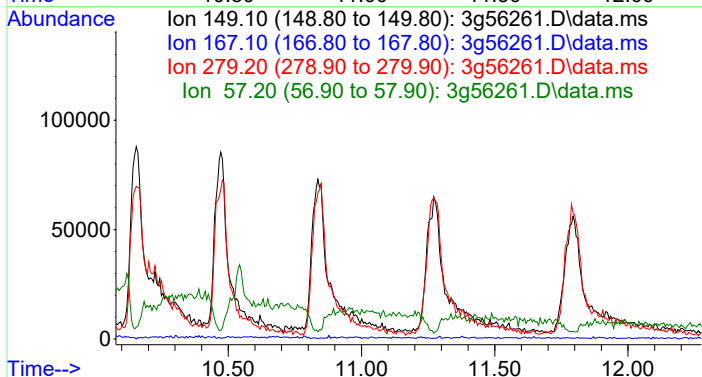




#45
 Bis(2-ethylhexyl)phthalate
 Concen: N.D.
 Expected RT: 11.18 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

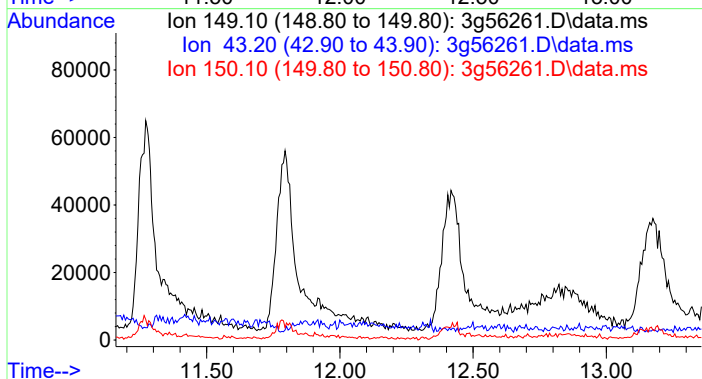
Tgt Ion	Exp Ratio
149	100
167	34.3
279	10.6
57	34.0



#46
 Di-n-octylphthalate
 Concen: N.D.
 Expected RT: 12.26 min

Lab File: 3g56261.D
 Acq: 5 Jun 2024 9:32 pm

Tgt Ion	Exp Ratio
149	100
43	12.1
150	10.0



07 June 2024

NAVFAC Hawaii
400 Marshall Road
JBPHH HI 96860-3139

**Subject: Joint Base Pearl Harbor-Hickam Drinking Water
EDWM TPH Detection Investigation
Sample D2-DL-0017712-24122-N**

Attention CDR Dunn:

On Saturday, 01 June 2024, AECOM was notified of a total petroleum hydrocarbons (TPH) detection of 1552 µg/L in sample D2-DL-0017712-24122-N, collected at hydrant 79 in Zone D2 on 29 May 2024. The sample was analyzed at (b) (4) CO for diesel range organics (DRO) and oil range organics (ORO) via EPA SW-846 Method 8015D following micro-extraction by SW-846 Method 3511. The total TPH value is the sum of 92.4 µg/L of DRO and 1460 µg/L of ORO. The sample chromatogram was reviewed to determine if the reported detection was likely to be related to a fuel-related petrogenic source, particularly the November 2021 release of JP-5, and if not, to assign a probable reason for the detection. All evidence points to the conclusion that this detection is unrelated to JP-5 and is likely due to contamination with a lubricating grease present in the hydrant at the time of sample collection.

The chromatogram for this sample is shown in Figure 1. Figure 2 displays the retention time (RT) marker reference standard with each of the carbon numbers labeled. The sample chromatogram shows an unresolved complex mixture that begins eluting at approximately the C20 range and extends slightly beyond C40. Since JP-5 elutes in the C10 to C16 range (Figure 3), there is no overlap with the substance found in the sample and therefore is not related.

Figure 1. Sample DA64637-4 D2-DL-0017712-24122-N

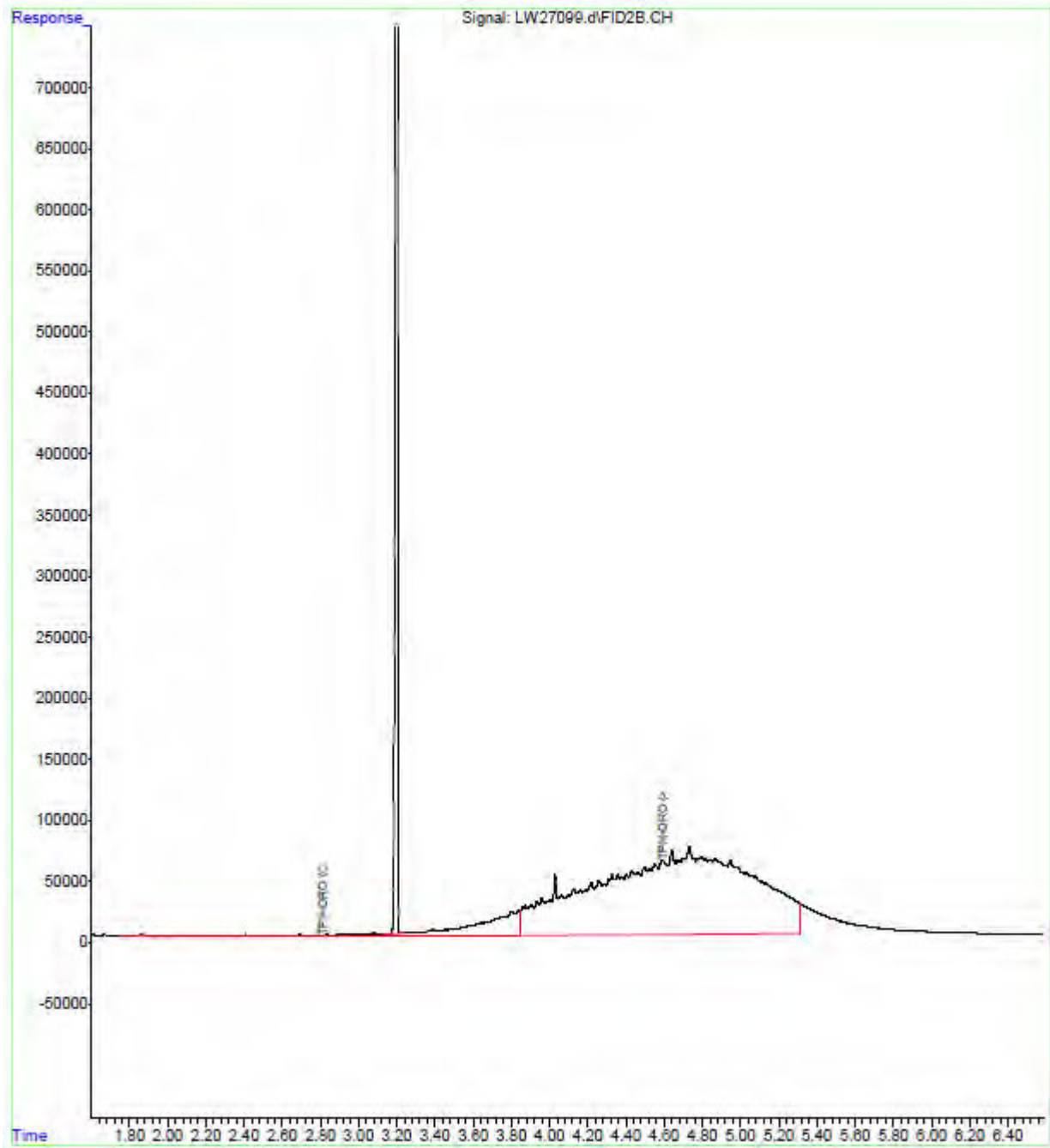


Figure 2. Retention Time Marker Standard with Carbon Numbers

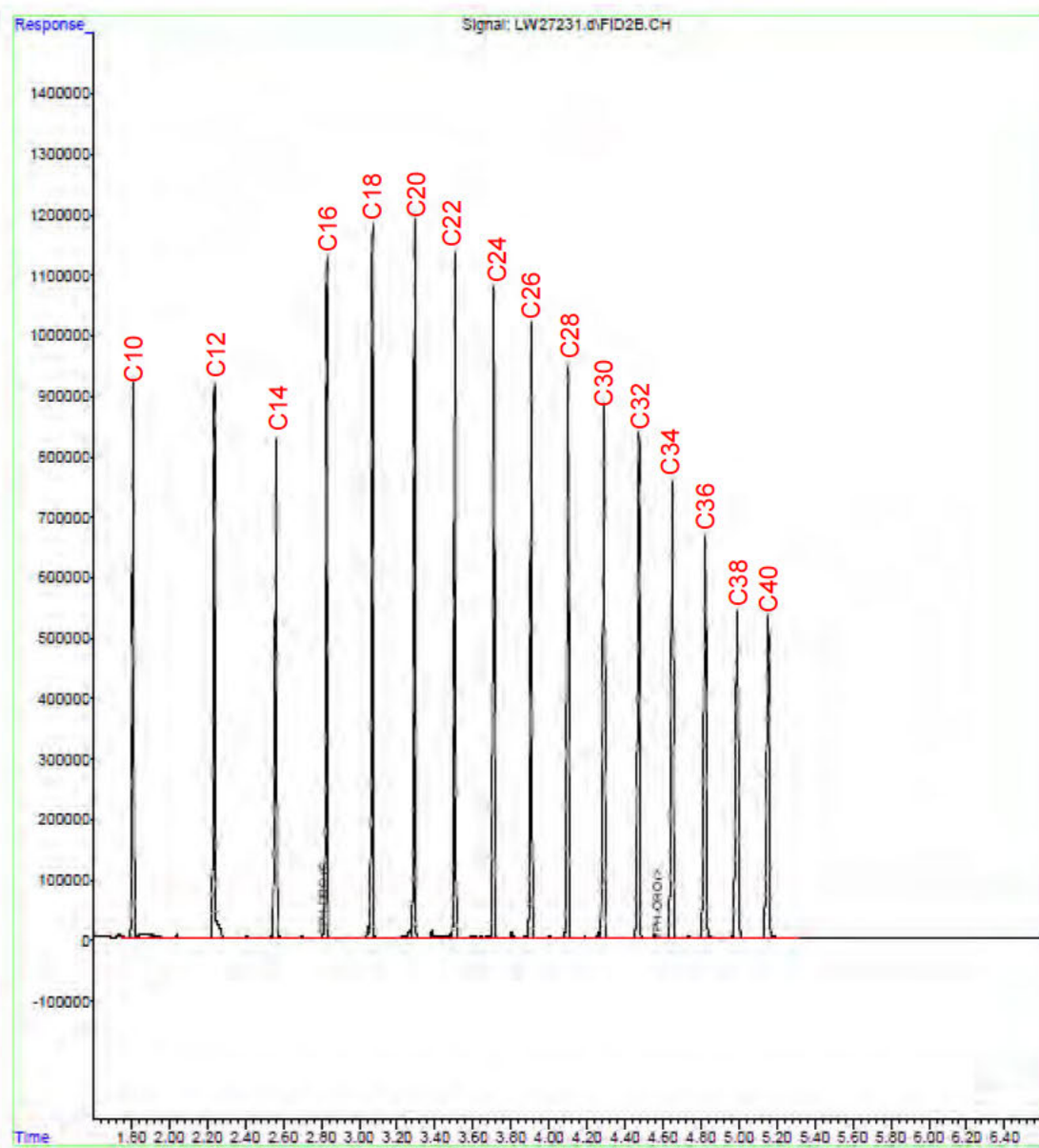
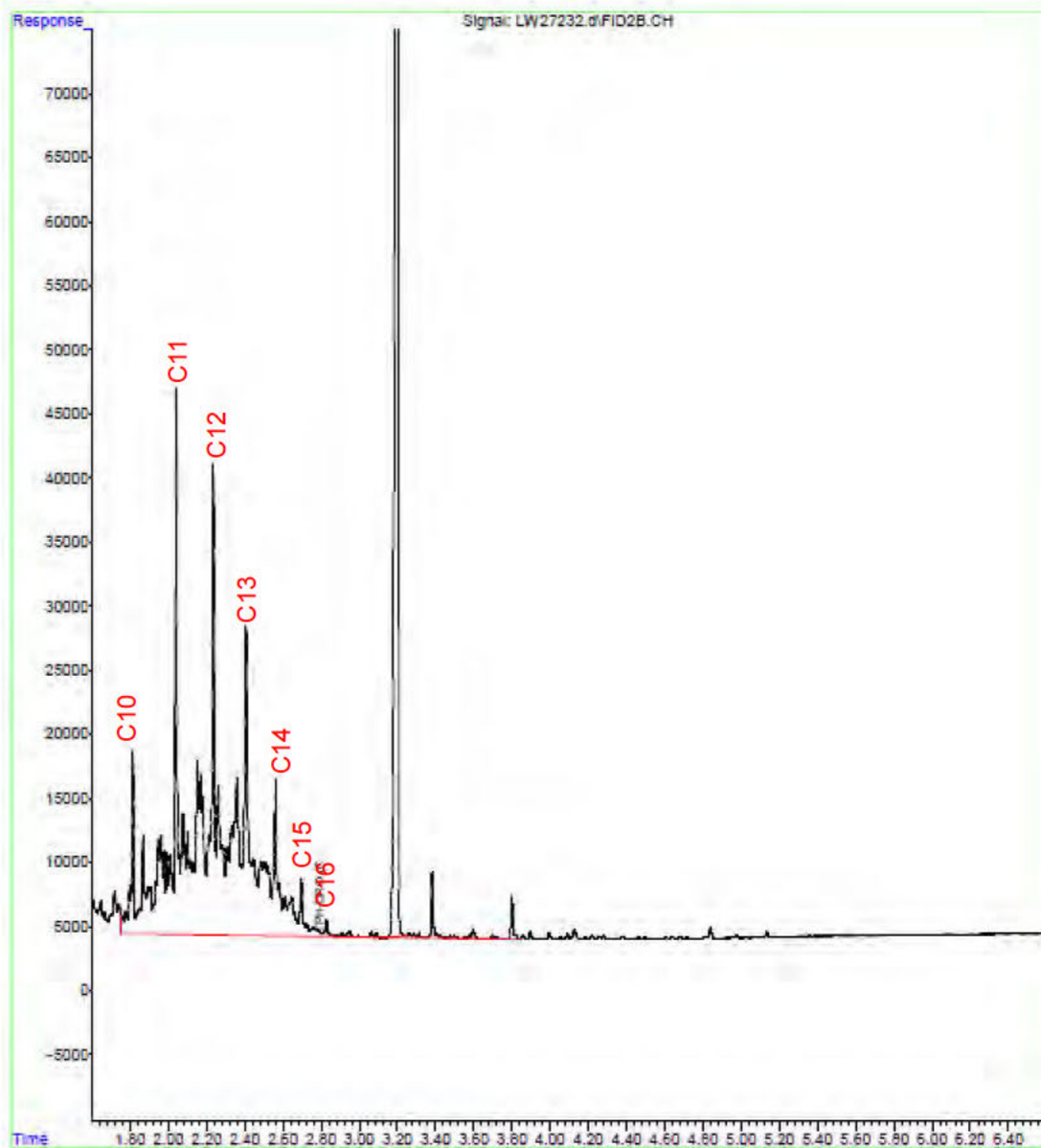


Figure 3. JP-5 Standard



The sample extract was further evaluated using the Tier 1 mass spectral confirmation procedure outlined in the Extended Drinking Water Monitoring (EDWM) plan. The procedure entails analyzing the sample and associated method blank extracts obtained in the original extraction using full scan Gas Chromatograph and Mass Spectroscopy (GC/MS) via Method 8270. The resulting total ion chromatograms are evaluated as follows:

- 1) For the sample, retain all peaks that are above a 3:1 signal-to-noise (S:N) ratio.
- 2) For peaks retained from Step 1, retain all peaks that have a response greater than 5 times that found in the method blank.

- 3) Obtain the mass spectrum and perform a background subtraction (including all blank contamination present below the MRL/MDL) for each peak retained from Step 2.
- 4) Perform a Tentatively Identified Compound (TIC) search evaluation on each peak retained from Step 3 by comparing the corrected mass spectrum to a National Institute of Standards and Technology (NIST) mass spectral library. Retain the top 5 probability matches for each. Retain a list of all TICs with an 80% probability match or higher.
- 5) Evaluate chromatograms, Extraction Limited Ion Profile Screening (ELIPS), and additional chemistry data from the laboratory to determine if the detected TPH is JP-5/other fuel-related analytes or is associated TPH-O, and/or with "naturally occurring" hydrocarbons.

The results of this evaluation further support the conclusion that the TPH detection is due to the presence of a high molecular weight hydrocarbon mixture consistent with a lubricating oil, such as those used in the routine maintenance of fire hydrants. The ELIPS selected ion chromatogram reviews did not indicate the presence of specific known petroleum related chemicals at concentrations indicating the presence of fresh or weathered petroleum derived fuel products.

AECOM has concluded that the chromatographic evidence from both the 8015 and 8270 analyses points to the presence of a heavy, lubricating oil type substance unrelated to JP-5. The TPH detection is attributed to residual lubricating oil in the hydrant fitting that was not removed during decontamination procedures or was located in a part of the hydrant that was not accessible to the sampling team.

Because incomplete decontamination may have contributed to the detection, AECOM immediately instituted a stand down from all sampling activities. On Monday, 03 June 2024, AECOM reviewed sampling and decontamination procedures with all sampling personnel. AECOM will ensure that any new sampling personnel are provided with SOP training prior to collecting any samples and will continue to conduct periodic refresher training with existing staff. Any modifications to SOPs will result in training for the entire team.

Questions regarding this letter should be addressed to (b) (6) at (b) (6)

Yours sincerely,

(b) (6)
(b) (6)
Senior Project Chemist
(b) (6)

(b) (6)
CLEAN Program Manager

Attachments

Attachment 1: Tier 1 Evaluation, Sample D2-DL-0017712-24122-N

Attachment 1:

Tier 1 Evaluation, Sample D2-DL-0017712-24122-N

Data Path : C:\Users\ (b) (6) \Desktop\AECOM\AECOM Screens\e3g2752-T1\
 Data File : 3g56252.D
 Acq On : 2 Jun 2024 12:13 am
 Operator : (b) (6)
 Sample : 637-4, R
 Misc : 0Pxxxxx,E3Gxxxx,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 02 17:08:28 2024

Quant Method : C:\Users\ (b) (6) \Desktop\AECOM SCREENS\AECOM_e3g_TPHEXT.M

Quant Title : 8270C Calibration

QLast Update : Wed May 01 09:46:22 2024

Response via : Initial Calibration

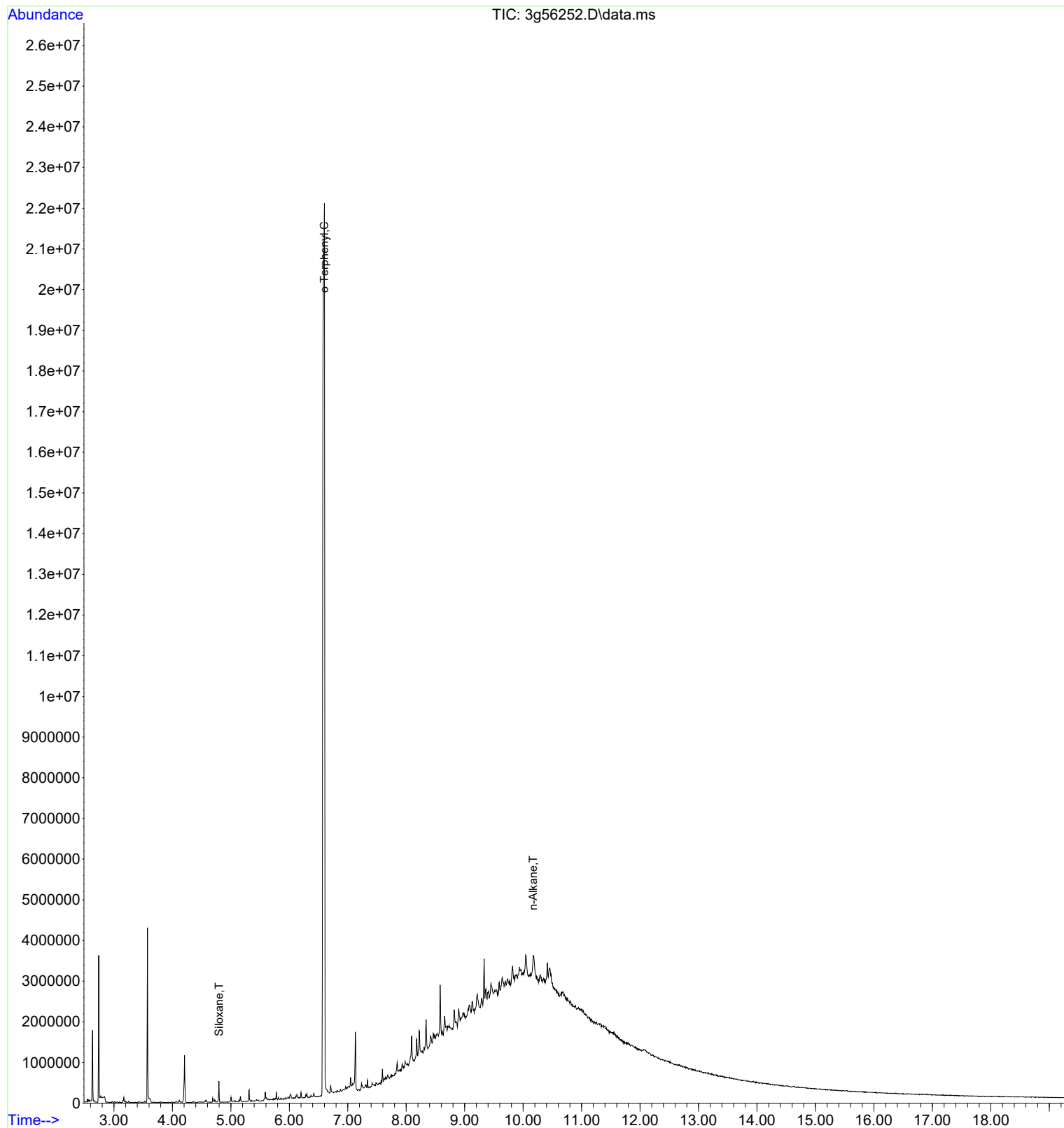
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

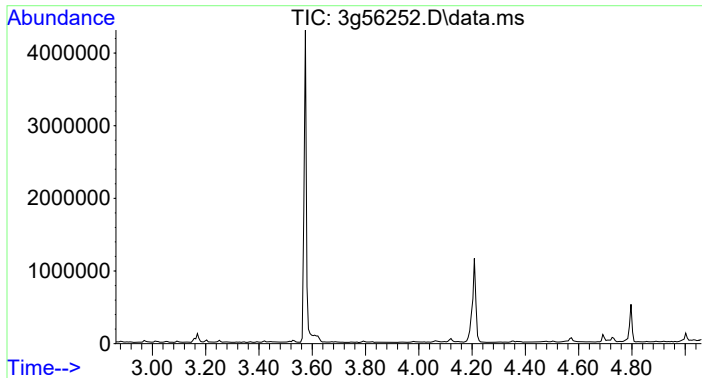
System Monitoring Compounds						
3) 1-Methylnaphthalene	0.000	142	0	0.00	ppm	
Spiked Amount	50.000	Range 1 - 250	Recovery	=	0.00%#	
5) Cyclohexane	0.000	84	0	0.00	ppm	
Spiked Amount	50.000	Range 1 - 250	Recovery	=	0.00%#	
Target Compounds						
						Qvalue
1) Undecane (C11)	0.000		0	N.D.		
2) Diethylnaphthalene	0.000		0	N.D.		
4) 1-Ethylpropylbenzene	0.000		0	N.D.		
6) Tridecane (C13)	0.000		0	N.D. d		
7) Dodecane (C12)	0.000		0	N.D. d		
8) Sesquiterpanes	0.000		0	N.D.		
9) Benzocyclohexane	0.000		0	N.D.		
10) Propylbutylbenzene	0.000		0	N.D.		
11) Cyclic Isoprenoid	0.000		0	N.D.		
12) Trimethylbenzene	0.000		0	N.D. d		
13) Bromo-Xa	4.473	57	2758	No Calib	#	
14) Bromo-Xb	4.479	55	2939	No Calib	#	
15) n-Hexadecanoic Acid	0.000		0	N.D.		
16) n-Octadecanoic Acid	0.000		0	N.D. d		
17) o-Terphenyl	6.600	230	9763507m	2087.00	ppm	
18) Bromo-o-Terphenyl	0.000		0	N.D. d		
19) Chloro-o-Terphenyl	0.000		0	N.D. d		
20) n-Alkane	10.172	57	44993910m	10101.75	ppm	
21) n-Nonane (C9)	0.000		0	N.D.		
22) n-Decane (C10)	0.000		0	N.D.		
23) n-Dodecane (C12)	0.000		0	N.D. d		
24) n-Tetradecane (C14)	0.000		0	N.D. d		
25) n-Hexadecane (C16)	0.000		0	N.D. d		
26) n-Octadecane (C18)	0.000		0	N.D. d		
27) n-Eicosane (C20)	6.600	57	12583	No Calib	#	
28) n-Heneicosane (C21)	7.681	57	45673	No Calib	#	
29) n-Docosane (C22)	7.158	57	9546	No Calib	#	
30) n-Tricosane (C23)	8.580	57	203072	No Calib	#	
31) n-Tetracosane (C24)	7.681	57	45673	No Calib	#	
32) n-Pentacosane (C25)	9.814	57	128674	No Calib	#	
33) n-Hexacosane (C26)	8.175	57	73436	No Calib	#	
34) n-Heptacosane (C27)	10.895	57	13877	No Calib	#	
35) n-Octacosane (C28)	8.580	57	203072	No Calib	#	
36) n-Nonacosane (C29)	12.076	57	4450	No Calib	#	
37) n-Triacontane (C30)	9.079	57	175647	No Calib	#	
38) n-Doatriciacontane (C32)	9.514	57	49750	No Calib	#	
39) n-Tetratriacontane (C34)	9.926	57	124889	No Calib	#	
40) n-Hexatriacontane (C36)	10.454	57	305641	No Calib	#	
41) n-Octatriacontane (C38)	11.013	57	18074	No Calib	#	
42) n-Tetracontane (C40)	11.800	57	5569	No Calib	#	
43) Siloxane	4.796	429	119750m	17.46	ppm	
44) Butyl benzyl phthalate	0.000		0	N.D. d		
45) Bis(2-ethylhexyl)phtha...	0.000		0	N.D. d		
46) Di-n-octylphthalate	0.000		0	N.D. d		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\Users\ (b) (6) \Desktop\AECOM\AECOM Screens\e3g2752-T1\
Data File : 3g56252.D
Acq On : 2 Jun 2024 12:13 am
Operator : (b) (6)
Sample : 637-4, R
Misc : 0Pxxxxx,E3Gxxxx,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 02 17:08:28 2024
Quant Method : C:\Users\ (b) (6) \Desktop\AECOM SCREENS\AECOM_e3g_TPHEXT.M
Quant Title : 8270C Calibration
QLast Update : Wed May 01 09:46:22 2024
Response via : Initial Calibration



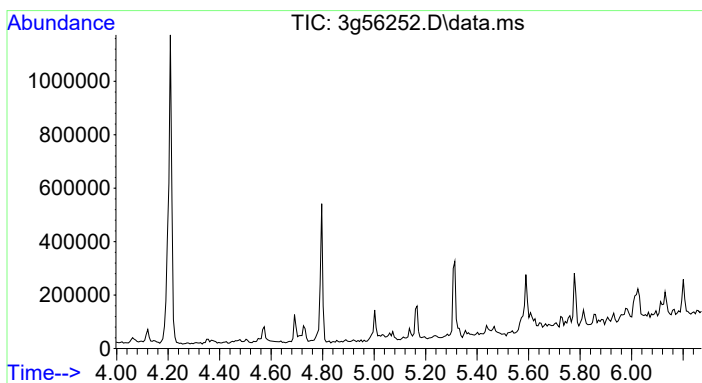
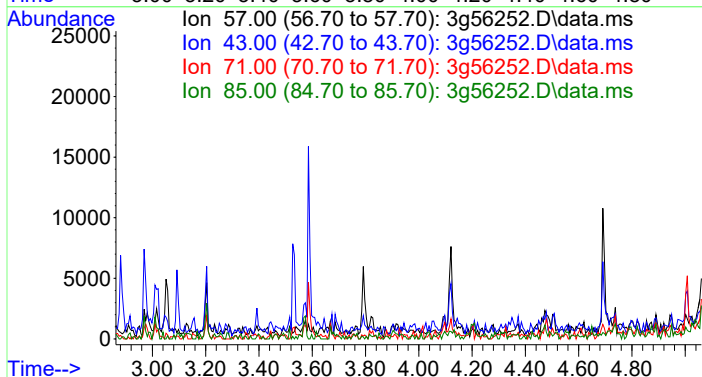


#1
 Undecane (C11)
 Concen: N.D.
 Expected RT: 3.96 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 57

Sig	Exp Ratio
57	100
43	50.0
71	0.0
85	0.0

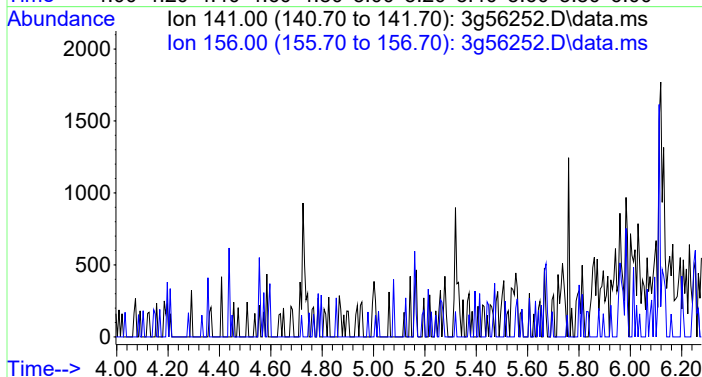


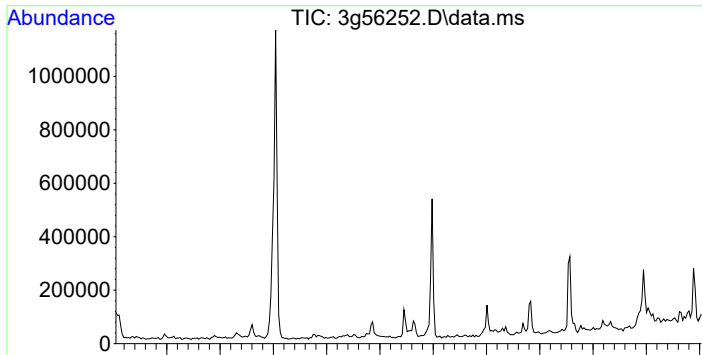
#2
 Diethylnaphthalene
 Concen: N.D.
 Expected RT: 5.10 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 141

Sig	Exp Ratio
141	100
156	50.0

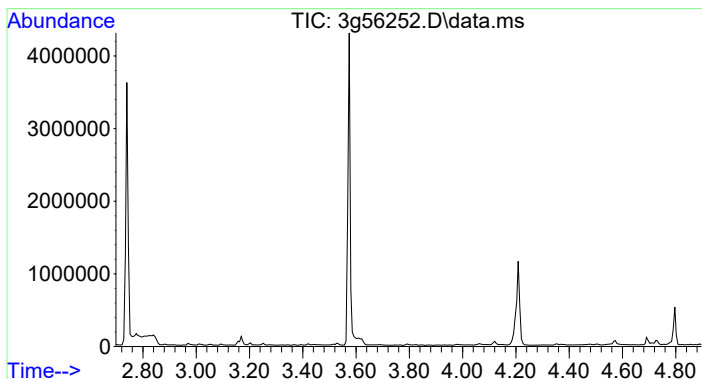
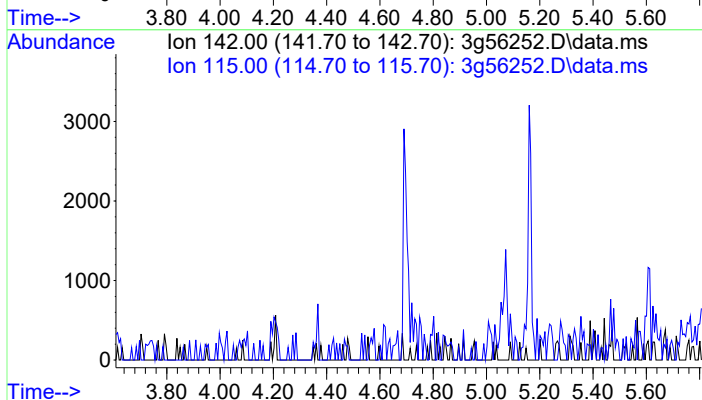




#3
 1-Methylnaphthalene
 Concen: 0.00 ppm
 Expected RT: 4.71 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 142

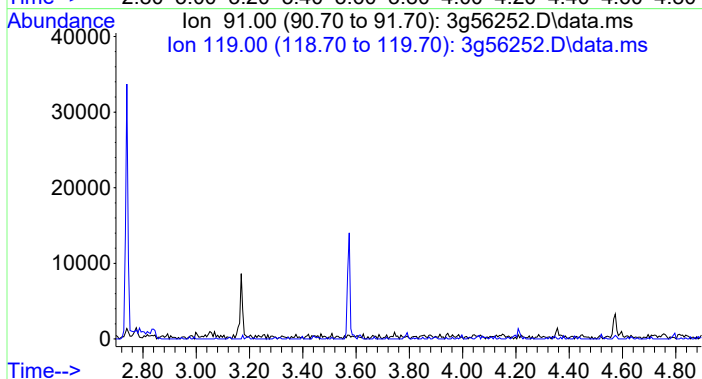
Sig	Exp Ratio
142	100
115	50.0

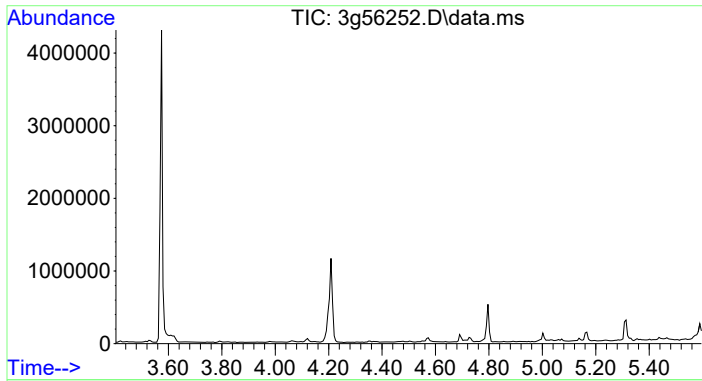


#4
 1-Ethylpropylbenzene
 Concen: N.D.
 Expected RT: 3.80 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
119	50.0

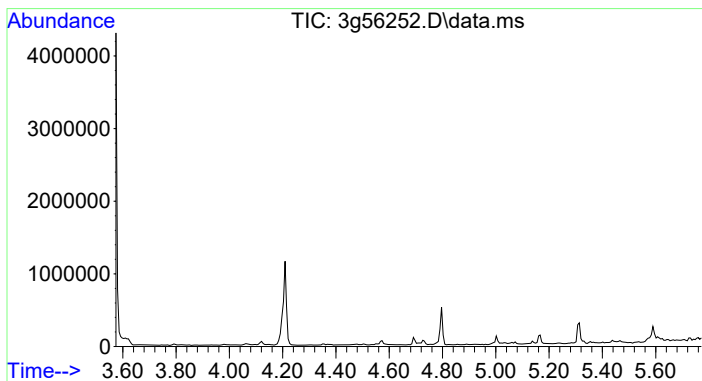
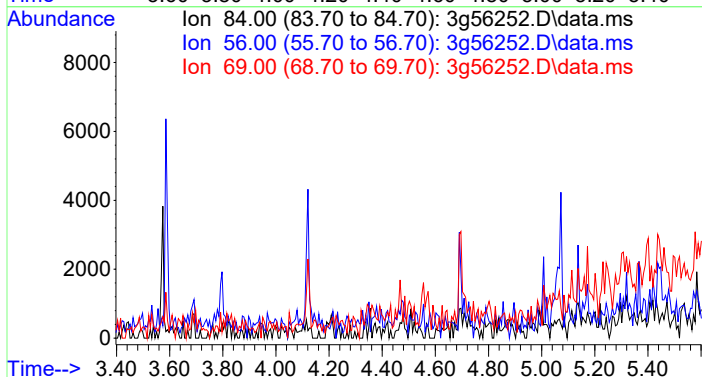




#5
Cyclohexane
Concen: 0.00 ppm
Expected RT: 4.50 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

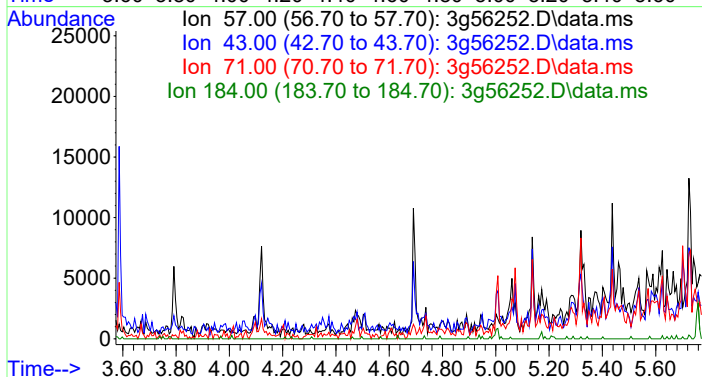
Tgt Ion:	84
Sig	Exp Ratio
84	100
56	0.0
69	0.0

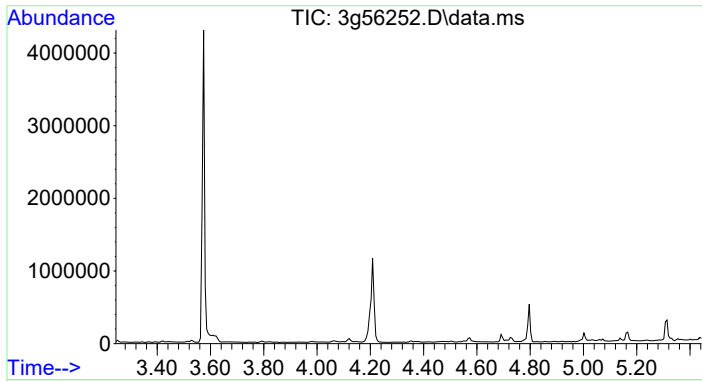


#6
Tridecane (C13)
Concen: N.D.
Expected RT: 4.67 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

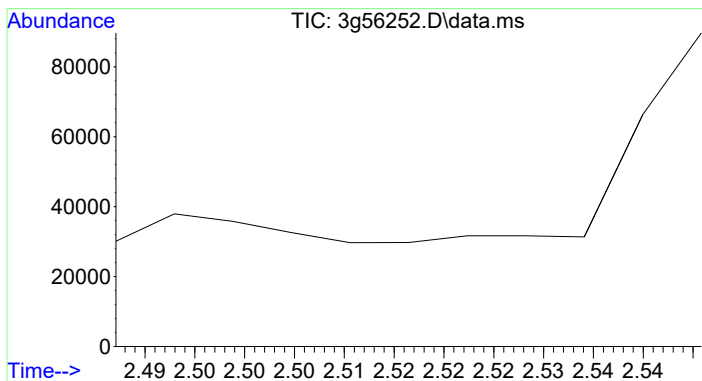
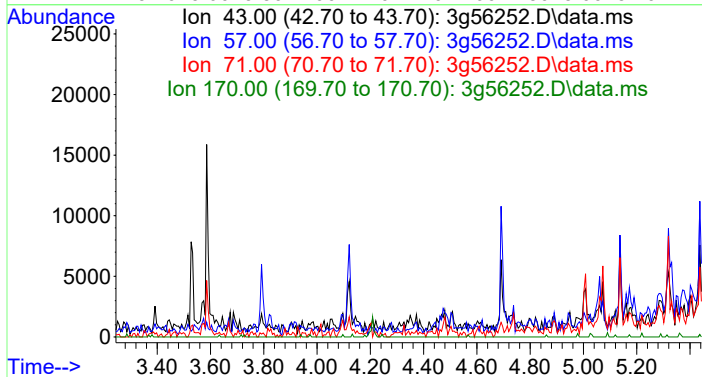
Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
184	0.0





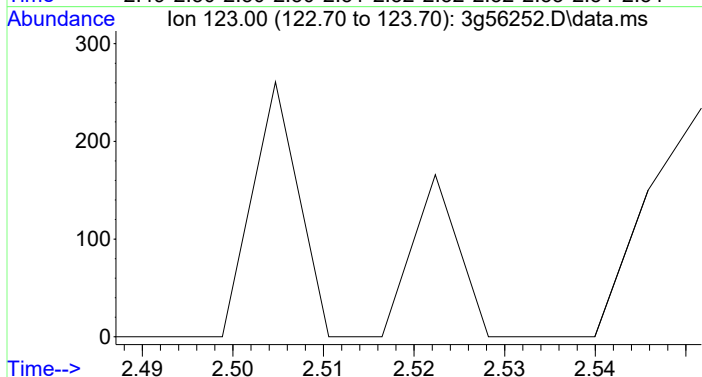
#7
 Dodecane (C12)
 Concen: N.D.
 Expected RT: 4.34 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

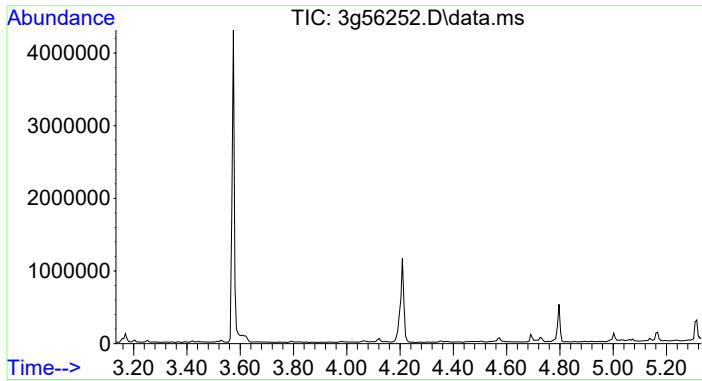
Tgt Ion:	43
Sig	Exp Ratio
43	100
57	50.0
71	50.0
170	50.0



#8
 Sesquiterpanes
 Concen: N.D.
 Expected RT: 1.45 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 123

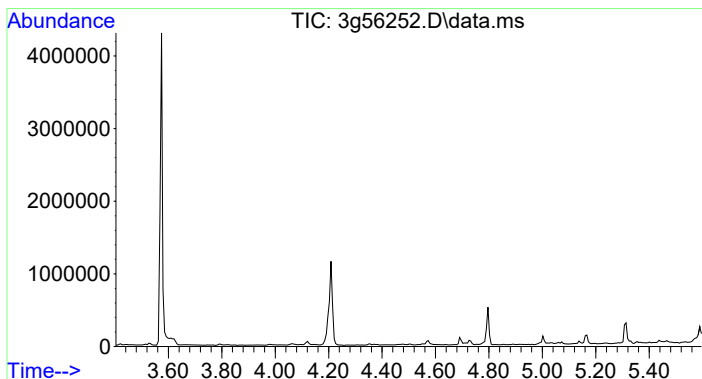
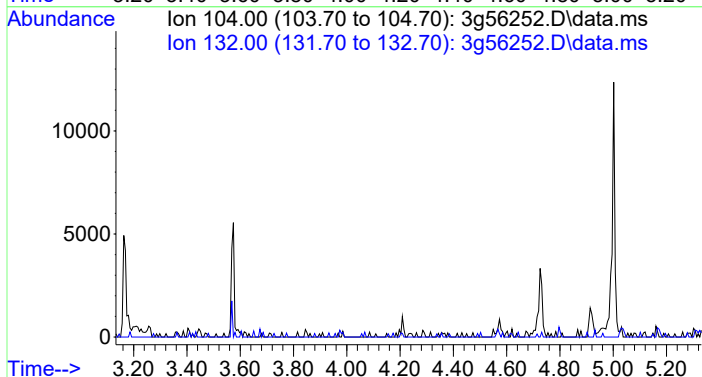




#9
Benzocyclohexane
Concen: N.D.
Expected RT: 4.23 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

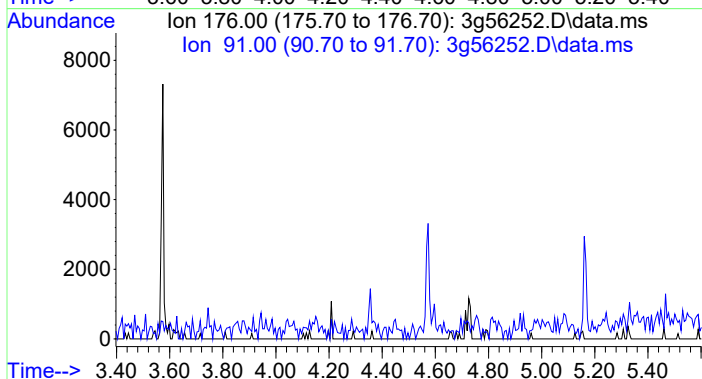
Tgt Ion	104
Sig	Exp Ratio
104	100
132	0.0

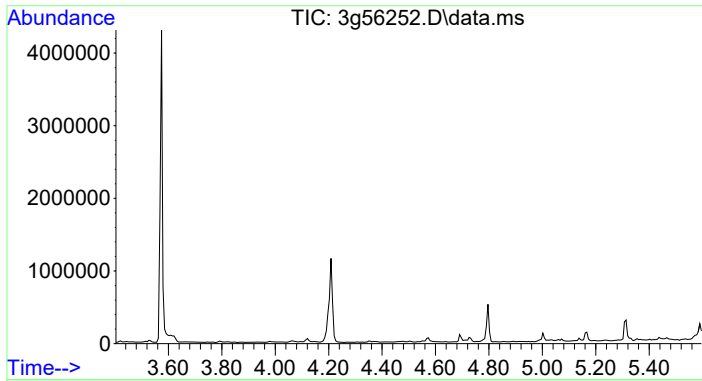


#10
Propylbutylbenzene
Concen: N.D.
Expected RT: 4.50 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

Tgt Ion	176
Sig	Exp Ratio
176	100
91	0.0

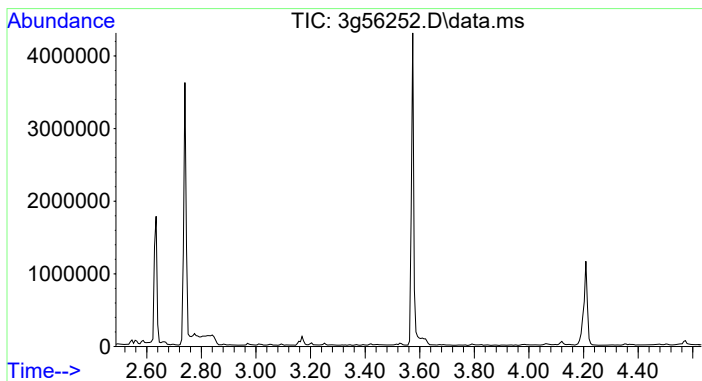
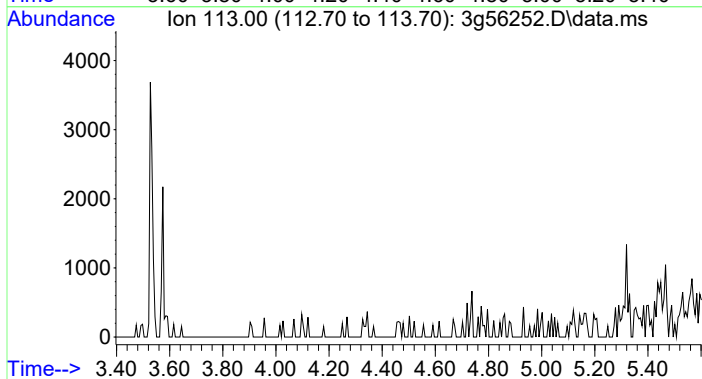




#11
Cyclic Isoprenoid
Concen: N.D.
Expected RT: 4.50 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

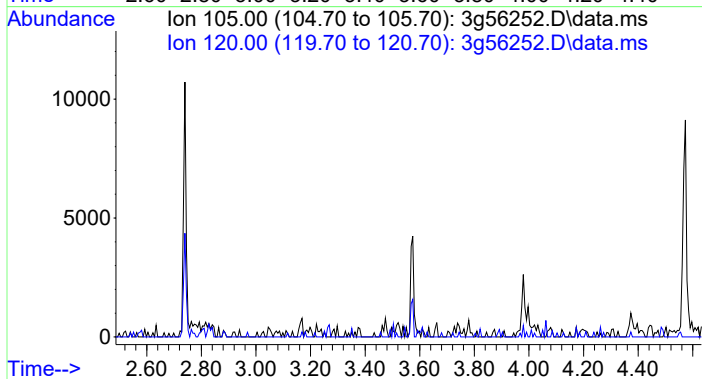
Tgt Ion: 113

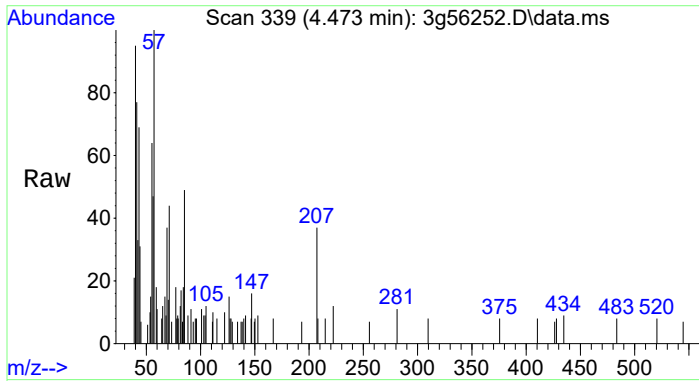


#12
Trimethylbenzene
Concen: N.D.
Expected RT: 3.53 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

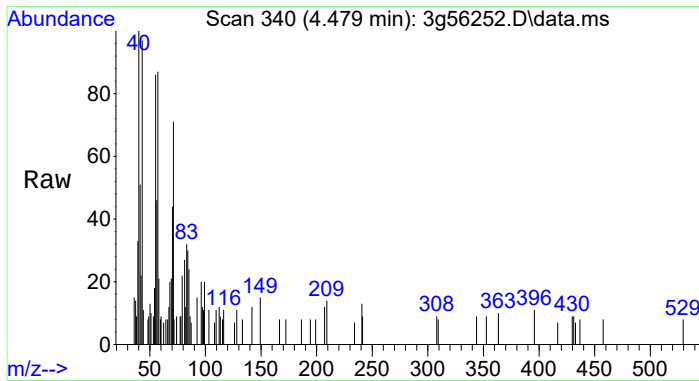
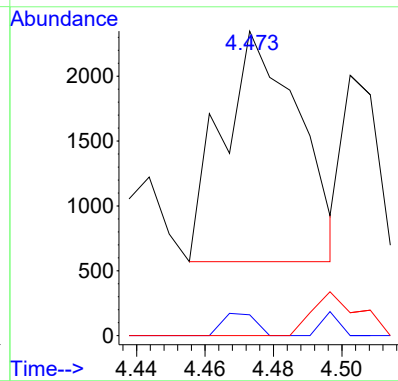
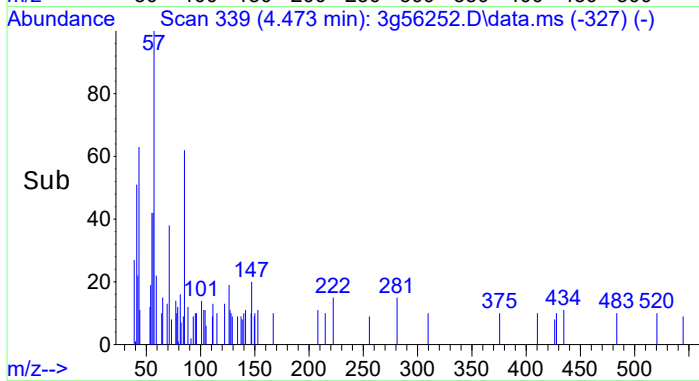
Tgt Ion: 105
Sig Exp Ratio
105 100
120 0.0





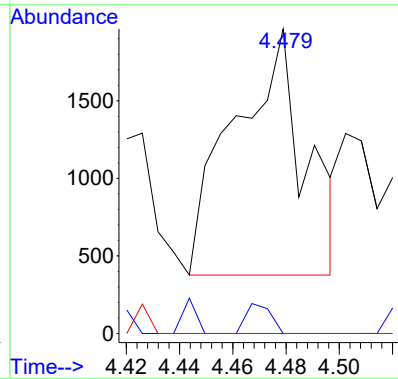
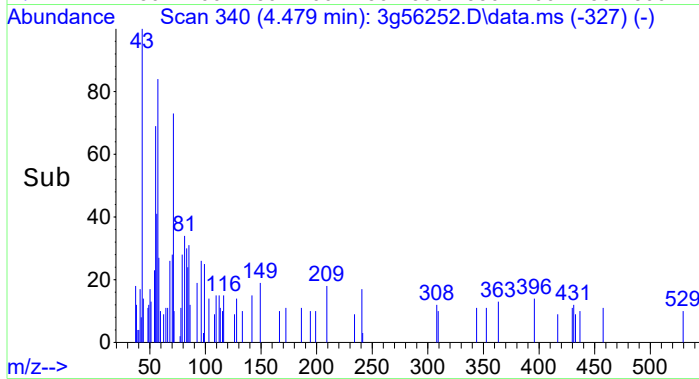
#13
Bromo-Xa
Concen: N.D.
RT: 4.473 min Scan# 339
Delta R.T. -0.027 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

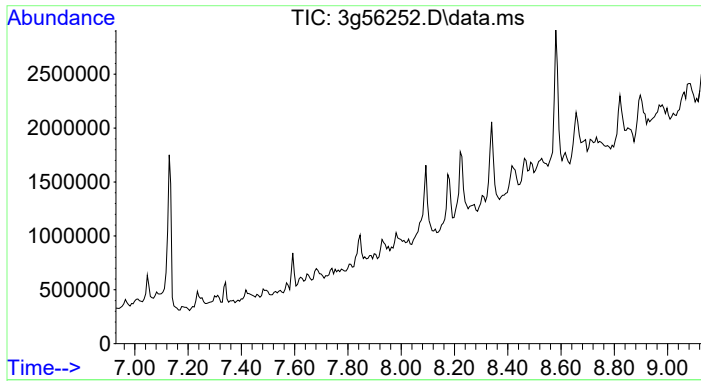
Tgt Ion: 57 Resp: 2758
Ion Ratio Lower Upper
57 100
137 0.0 0.0 0.0
139 0.0 0.0 0.0



#14
Bromo-Xb
Concen: N.D.
RT: 4.479 min Scan# 340
Delta R.T. -0.021 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

Tgt Ion: 55 Resp: 2939
Ion Ratio Lower Upper
55 100
134 0.0 0.0 0.0
136 0.0 0.0 0.0

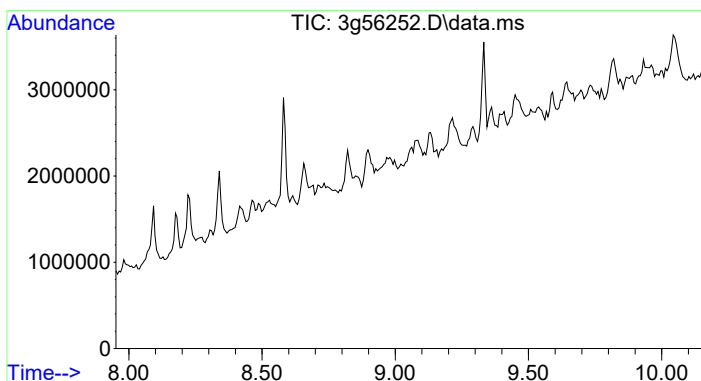
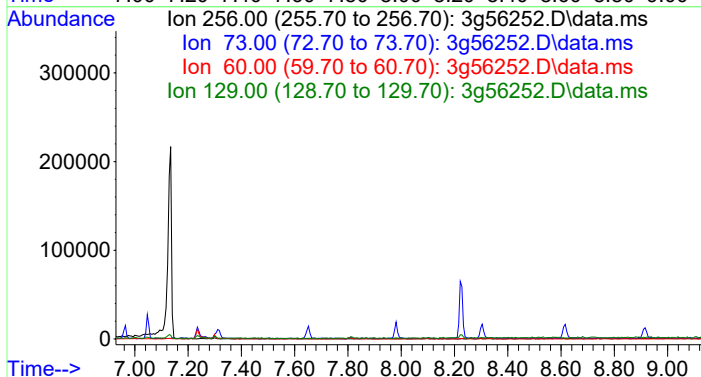




#15
n-Hexadecanoic Acid
Concen: N.D.
Expected RT: 8.03 min

Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

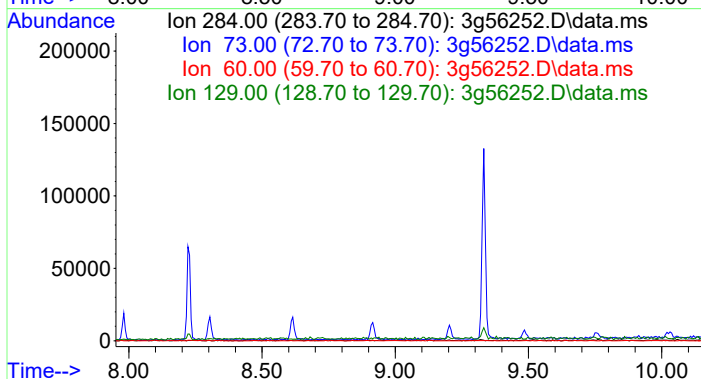
Tgt Ion:	256
Sig	Exp Ratio
256	100
73	117.8
60	50.7
129	36.1

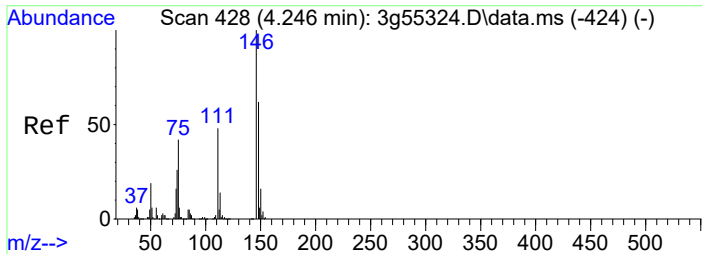


#16
n-Octadecanoic Acid
Concen: N.D.
Expected RT: 9.05 min

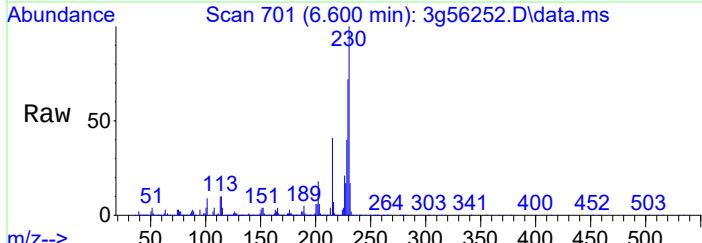
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

Tgt Ion:	284
Sig	Exp Ratio
284	100
73	62.7
60	46.4
129	50.0

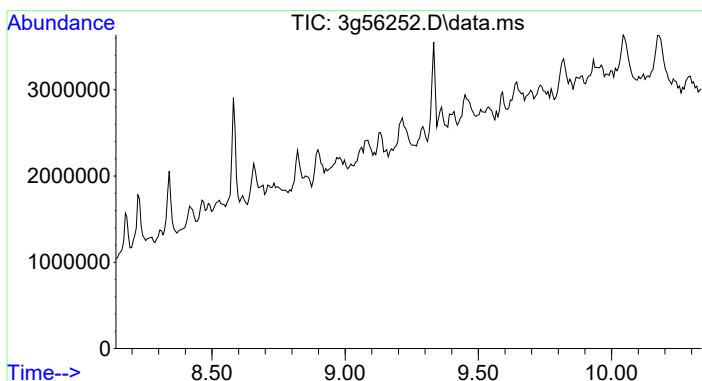
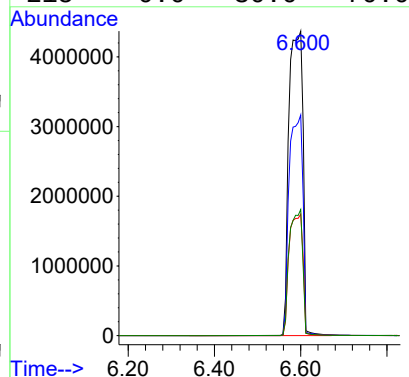
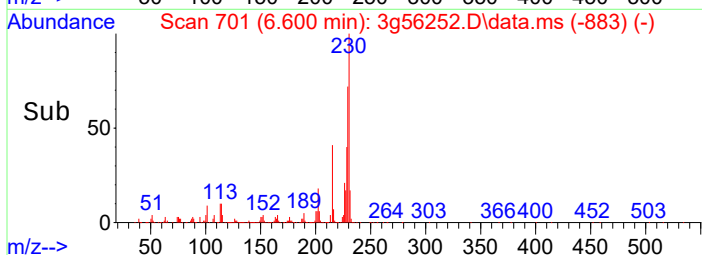




#17
 o-Terphenyl
 Concen: 2087.00 ppm m
 RT: 6.600 min Scan# 701
 Delta R.T. -1.168 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

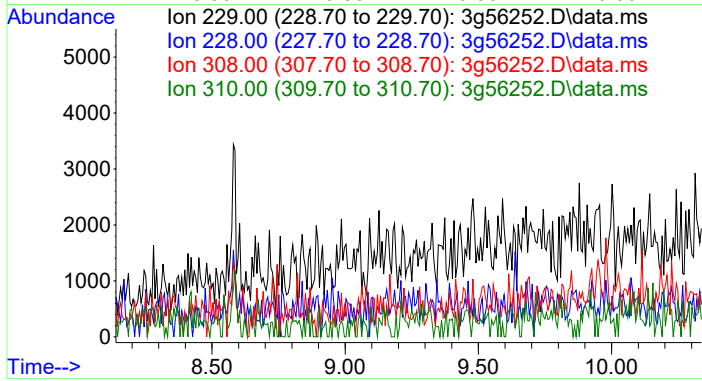


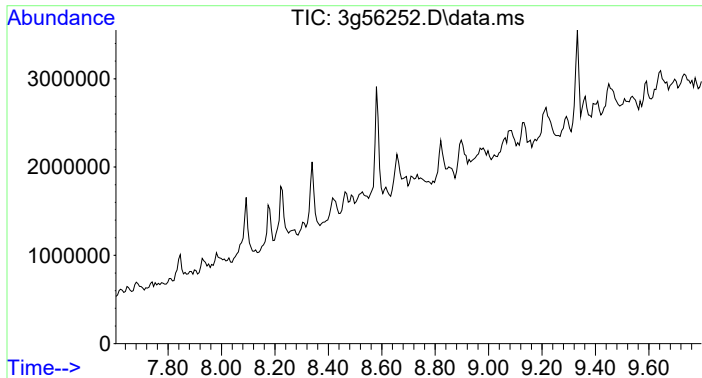
Tgt Ion:	230	Resp:	9763507
Ion Ratio		Lower	Upper
230	100		
229	0.0	43.0	83.0#
228	0.0	27.3	67.3#
215	0.0	30.0	70.0#



#18
 Bromo-o-Terphenyl
 Concen: N.D.
 Expected RT: 9.24 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

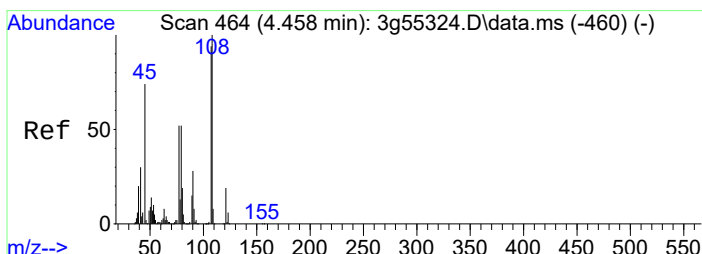
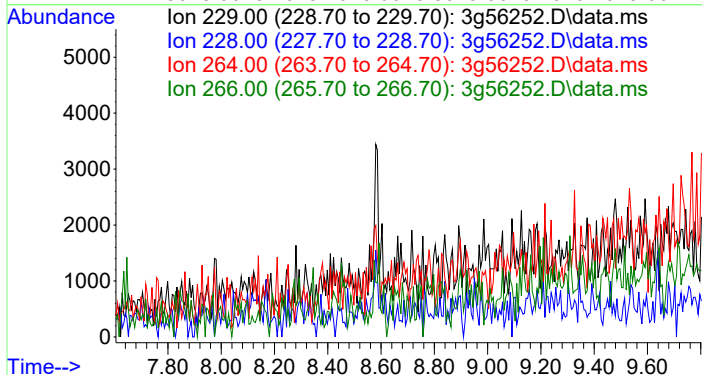
Tgt Ion:	229
Sig	Exp Ratio
229	100
228	135.4
308	79.5
310	0.0





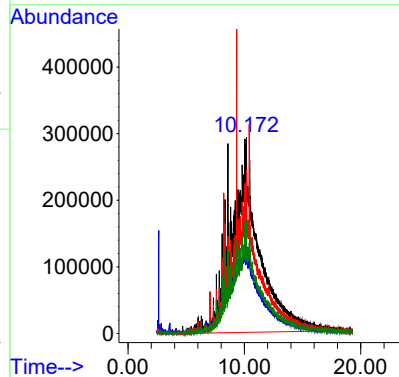
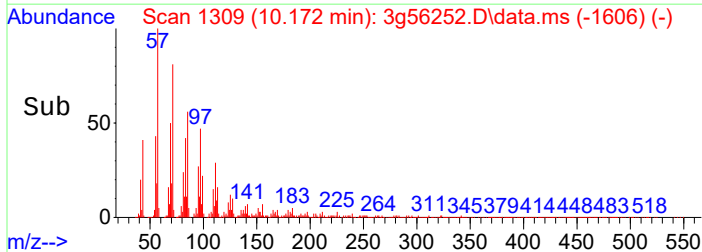
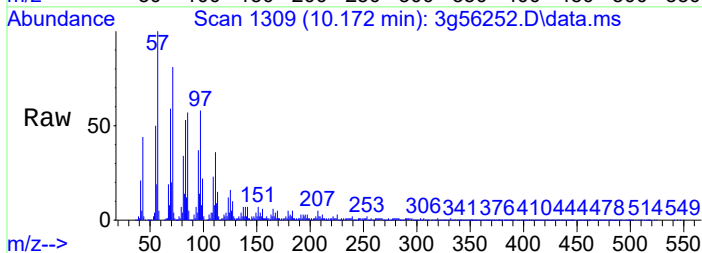
#19
 Chloro-o-Terphenyl
 Concen: N.D.
 Expected RT: 8.70 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

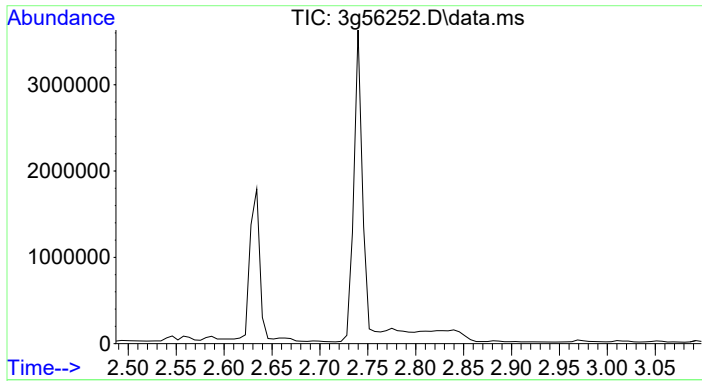
Tgt Ion:	229
Sig	Exp Ratio
229	100
228	63.1
264	48.7
266	0.0



#20
 n-Alkane
 Concen: 10101.75 ppm m
 RT: 10.172 min Scan# 1309
 Delta R.T. -1.844 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion:	57	Resp:	44993910
Ion	Ratio	Lower	Upper
57	100		
43	0.0	30.0	70.0#
71	0.0	30.0	70.0#
85	0.0	30.0	70.0#

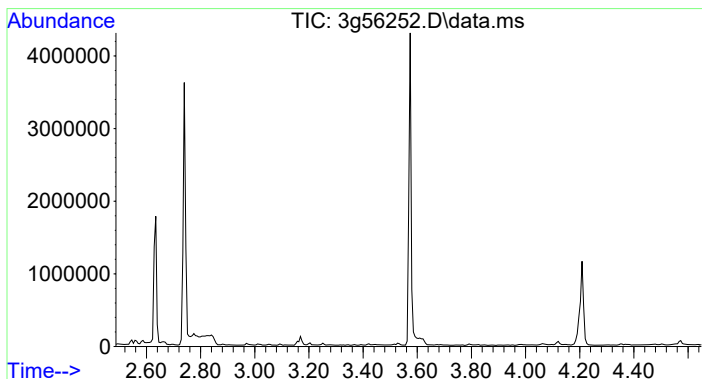
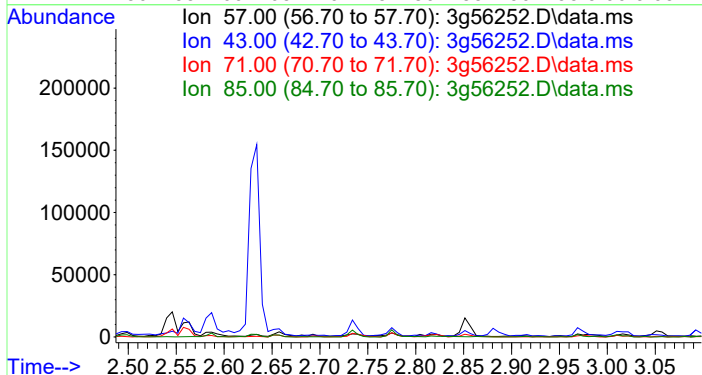




#21
 n-Nonane (C9)
 Concen: N.D.
 Expected RT: 2.00 min

 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

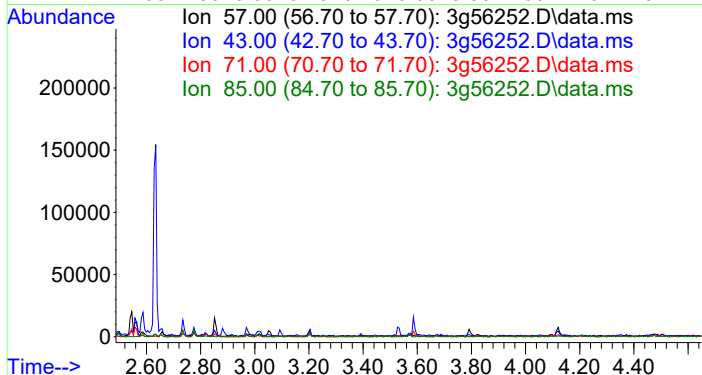
Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

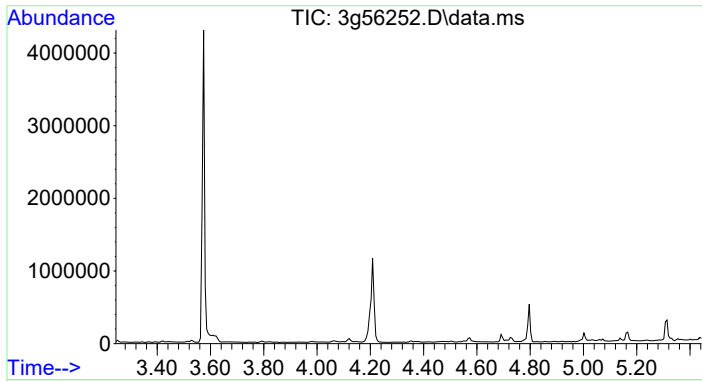


#22
 n-Decane (C10)
 Concen: N.D.
 Expected RT: 3.55 min

 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

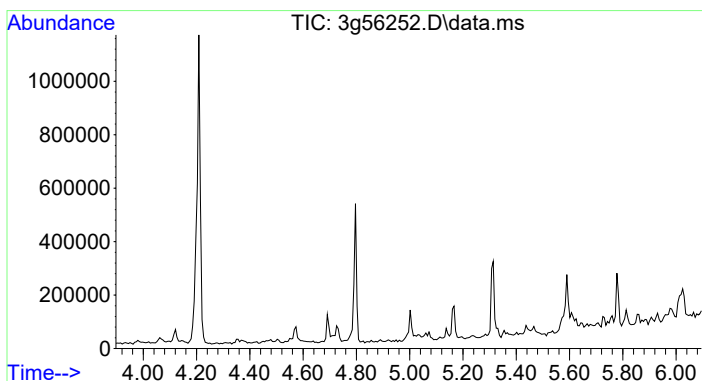
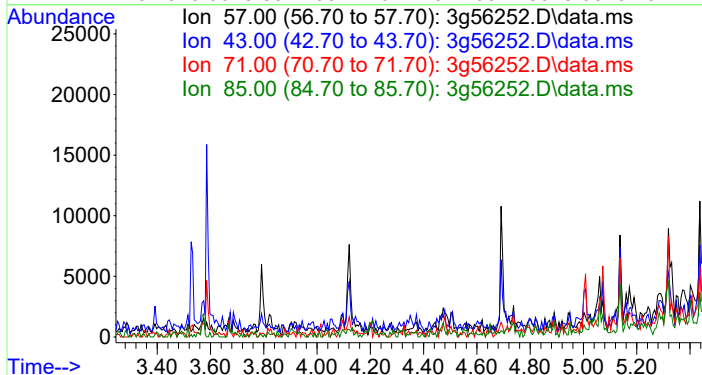




#23
 n-Dodecane (C12)
 Concen: N.D.
 Expected RT: 4.34 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

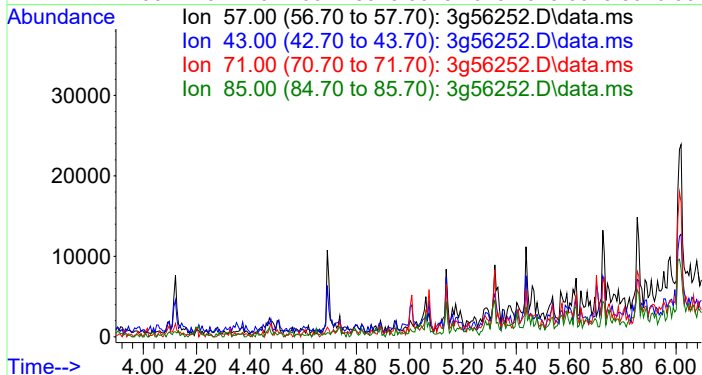
Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

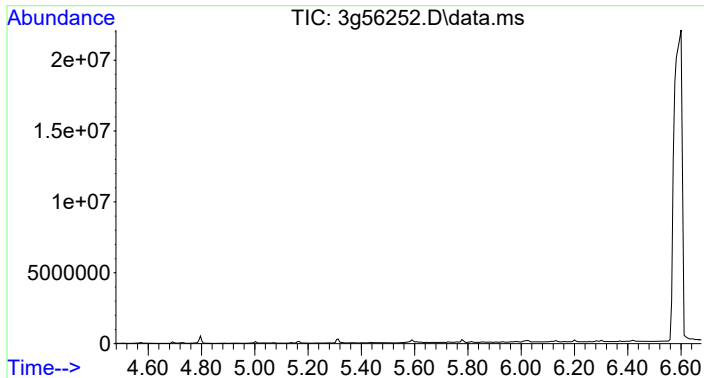


#24
 n-Tetradecane (C14)
 Concen: N.D.
 Expected RT: 5.00 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion:	57
Sig	Exp Ratio
57	100
43	0.0
71	0.0
85	0.0

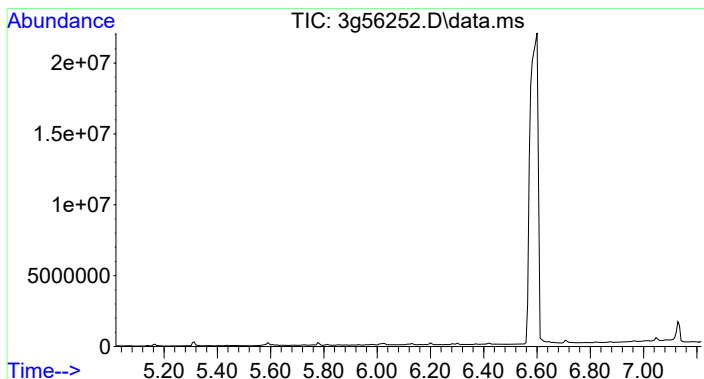
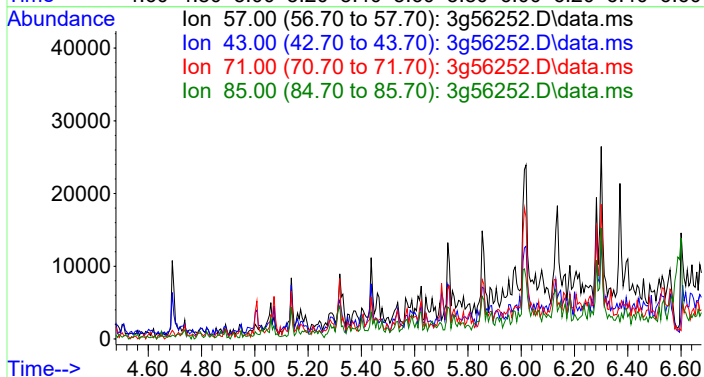




#25
 n-Hexadecane (C16)
 Concen: N.D.
 Expected RT: 5.58 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

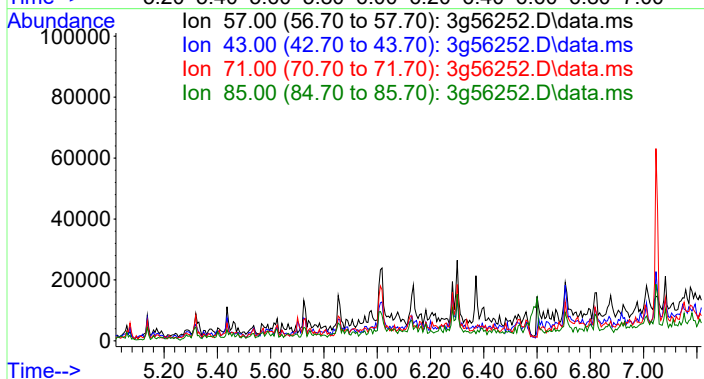
Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0

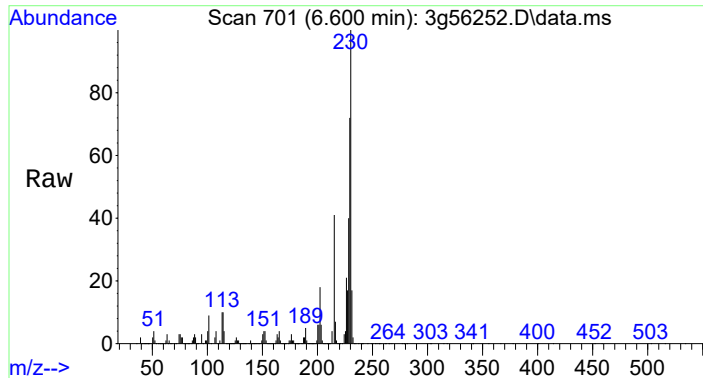


#26
 n-Octadecane (C18)
 Concen: N.D.
 Expected RT: 6.12 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

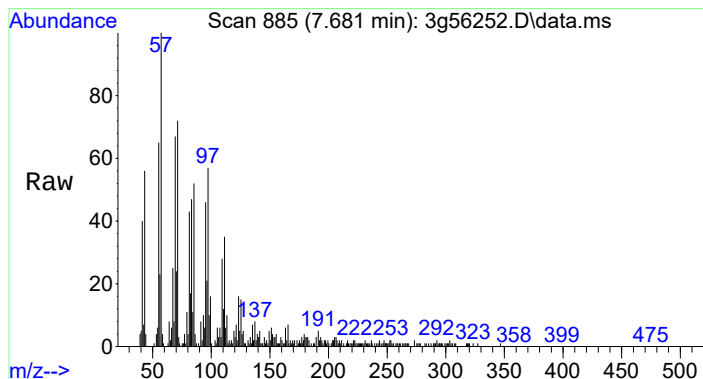
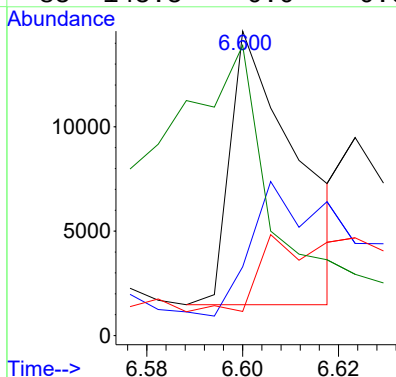
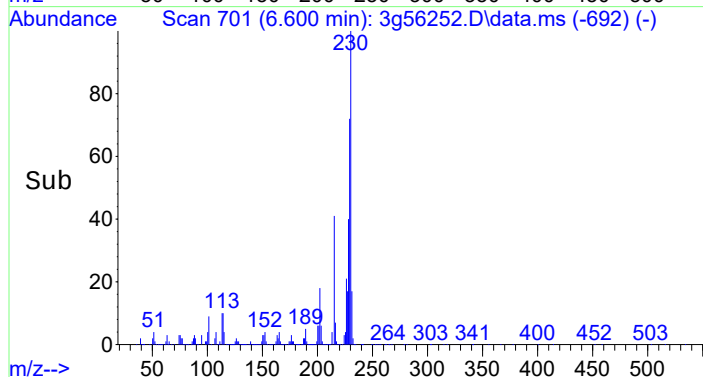
Tgt Ion: 57
 Sig Exp Ratio
 57 100
 43 0.0
 71 0.0
 85 0.0





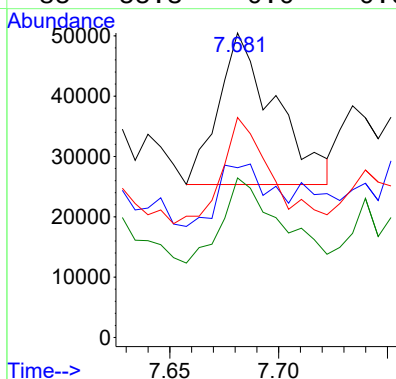
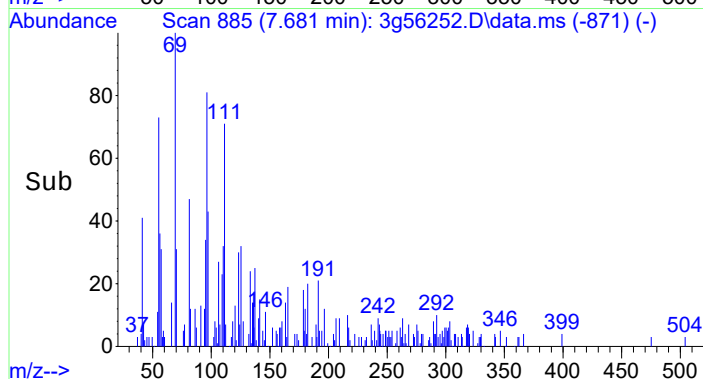
#27
n-Eicosane (C20)
Concen: N.D.
RT: 6.600 min Scan# 701
Delta R.T. -0.047 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

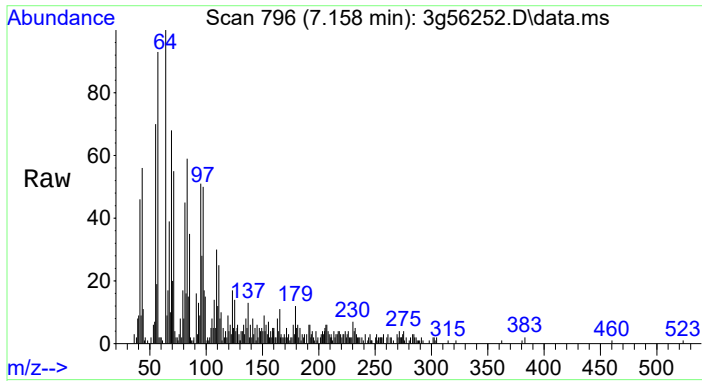
Tgt Ion:	57	Resp:	12583
Ion	Ratio	Lower	Upper
57	100		
43	71.4	0.0	0.0#
71	49.9	0.0	0.0#
85	145.5	0.0	0.0#



#28
n-Heneicosane (C21)
Concen: N.D.
RT: 7.681 min Scan# 885
Delta R.T. -0.019 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

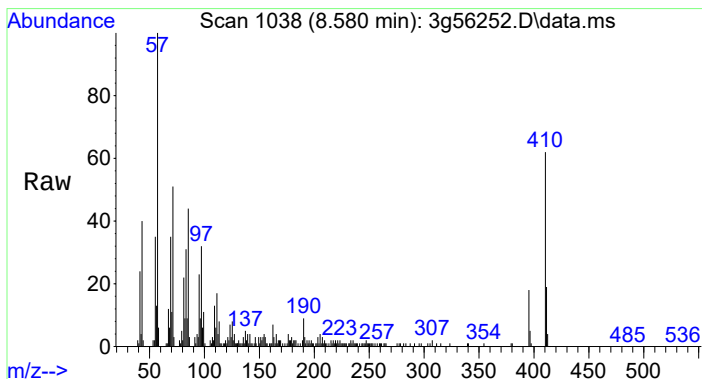
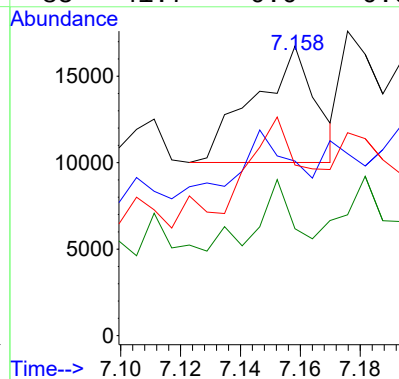
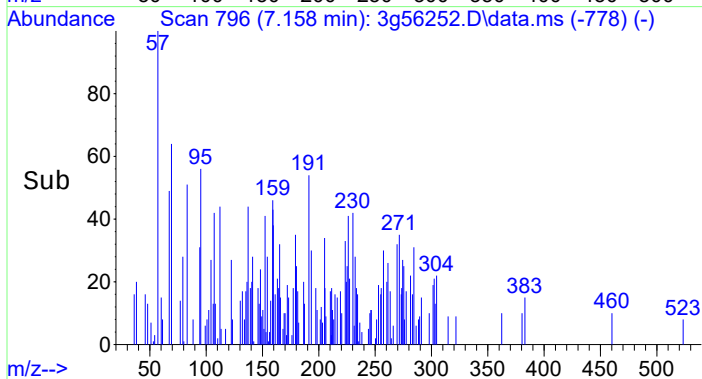
Tgt Ion:	57	Resp:	45673
Ion	Ratio	Lower	Upper
57	100		
43	37.6	0.0	0.0#
71	59.2	0.0	0.0#
85	55.3	0.0	0.0#





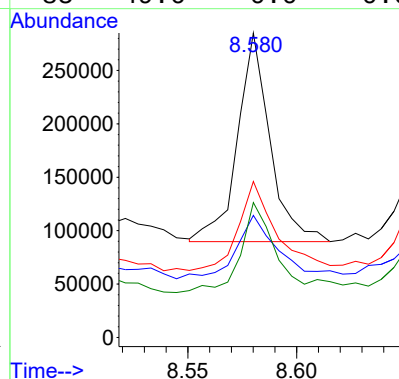
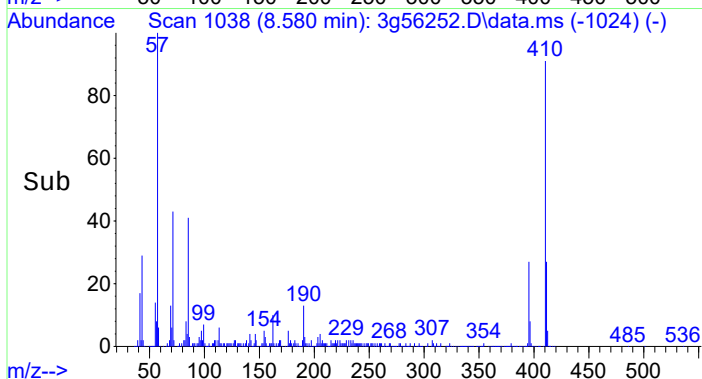
#29
n-Docosane (C22)
Concen: N.D.
RT: 7.158 min Scan# 796
Delta R.T. 0.006 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

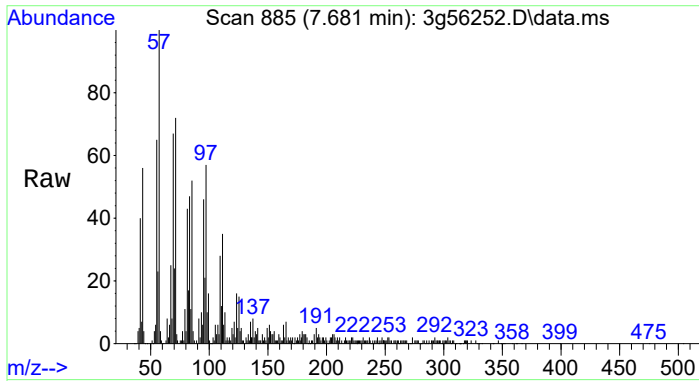
Tgt Ion:	57	Resp:	9546
Ion Ratio		Lower	Upper
57	100		
43	57.7	0.0	0.0#
71	105.2	0.0	0.0#
85	41.7	0.0	0.0#



#30
n-Tricosane (C23)
Concen: N.D.
RT: 8.580 min Scan# 1038
Delta R.T. -0.020 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

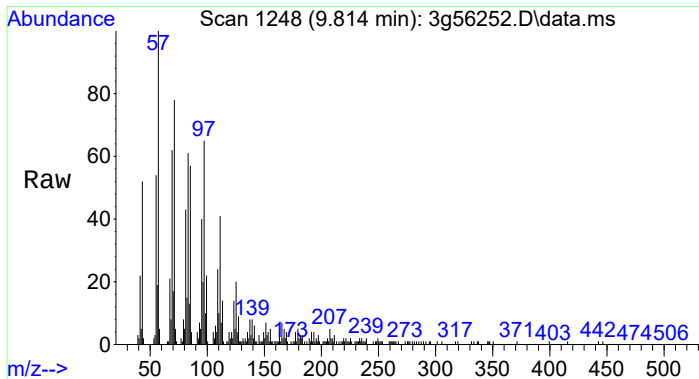
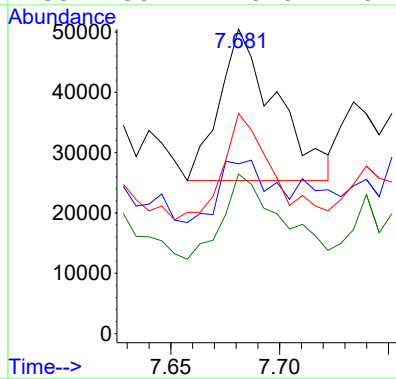
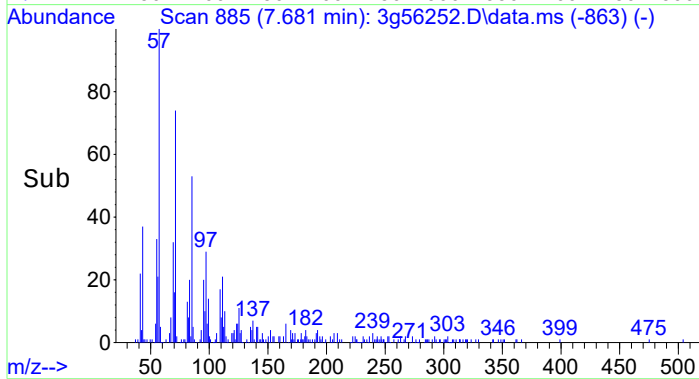
Tgt Ion:	57	Resp:	203072
Ion Ratio		Lower	Upper
57	100		
43	39.9	0.0	0.0#
71	50.0	0.0	0.0#
85	49.6	0.0	0.0#





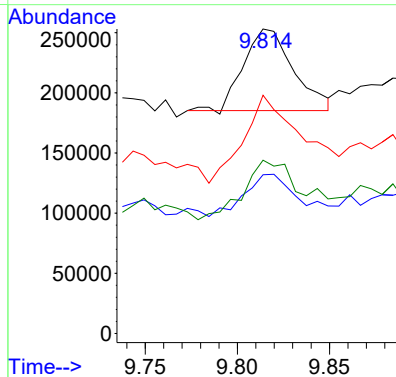
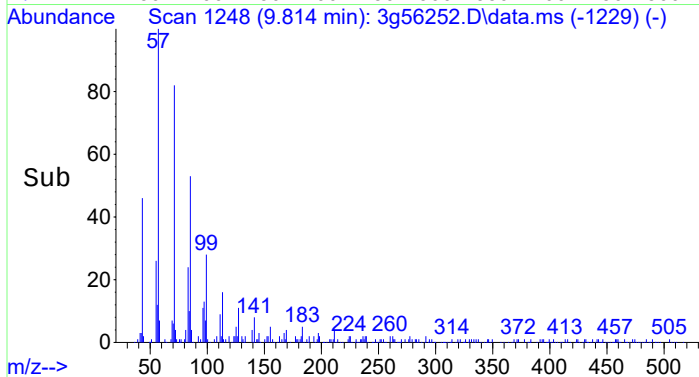
#31
n-Tetracosane (C24)
Concen: N.D.
RT: 7.681 min Scan# 885
Delta R.T. 0.029 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

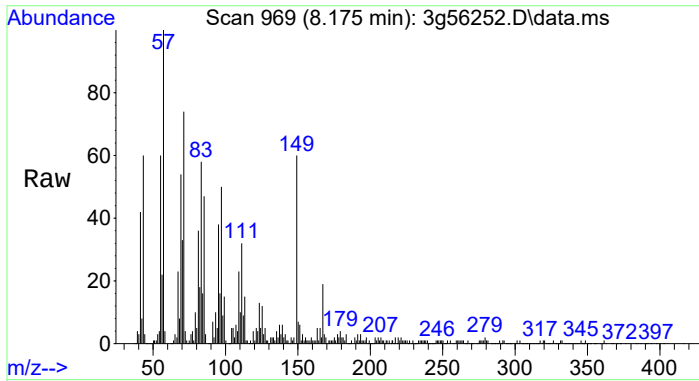
Tgt Ion:	57	Resp:	45673
Ion Ratio		Lower	Upper
57	100		
43	37.6	0.0	0.0#
71	57.2	0.0	0.0#
85	56.4	0.0	0.0#



#32
n-Pentacosane (C25)
Concen: N.D.
RT: 9.814 min Scan# 1248
Delta R.T. 0.014 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

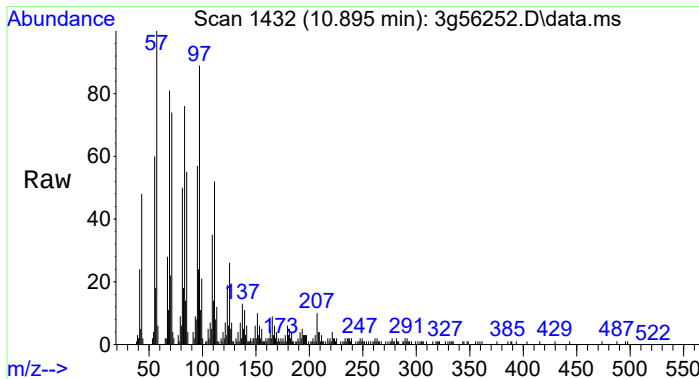
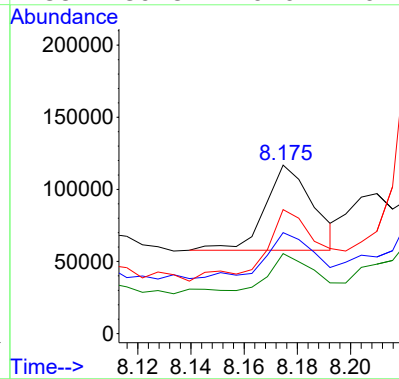
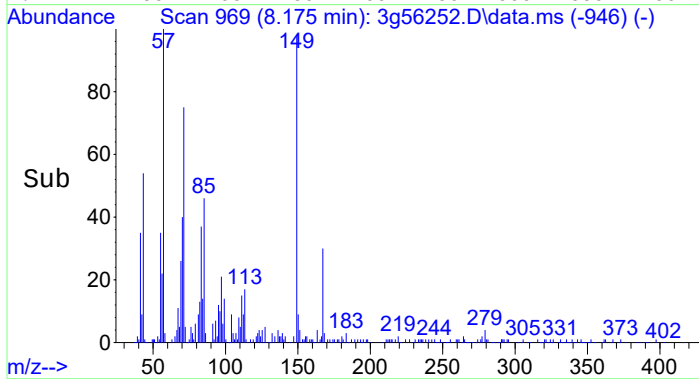
Tgt Ion:	57	Resp:	128674
Ion Ratio		Lower	Upper
57	100		
43	56.6	0.0	0.0#
71	128.1	0.0	0.0#
85	84.7	0.0	0.0#





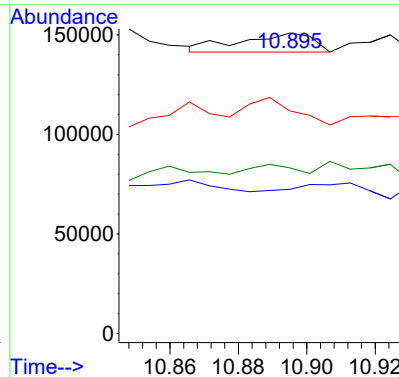
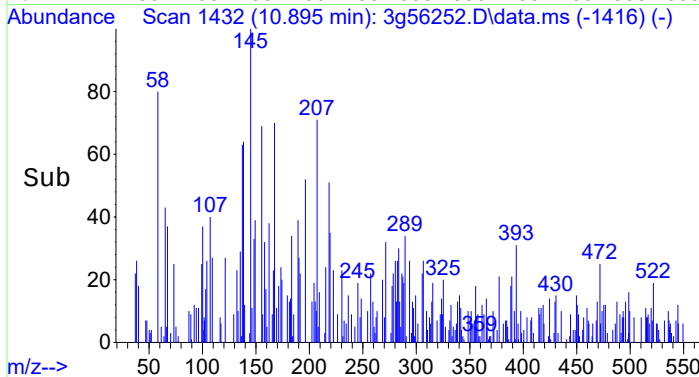
#33
n-Hexacosane (C26)
Concen: N.D.
RT: 8.175 min Scan# 969
Delta R.T. 0.036 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

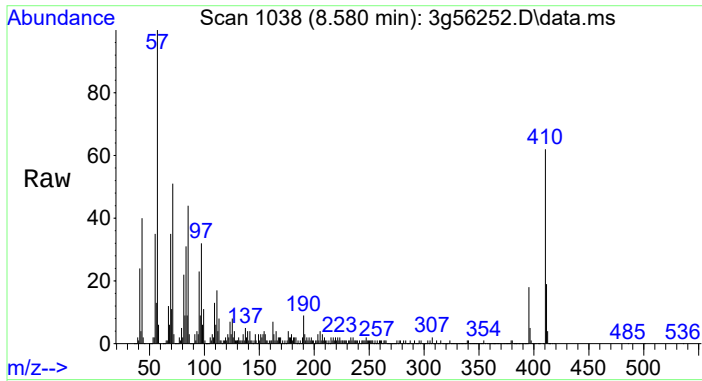
Tgt Ion:	57	Resp:	73436
Ion	Ratio	Lower	Upper
57	100		
43	53.8	0.0	0.0#
71	101.8	0.0	0.0#
85	39.5	0.0	0.0#



#34
n-Heptacosane (C27)
Concen: N.D.
RT: 10.895 min Scan# 1432
Delta R.T. -0.005 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

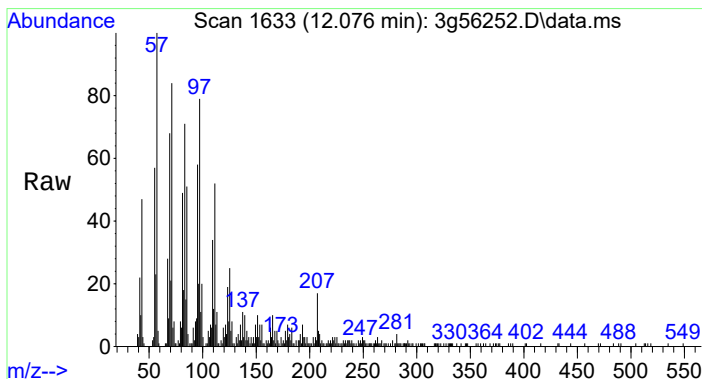
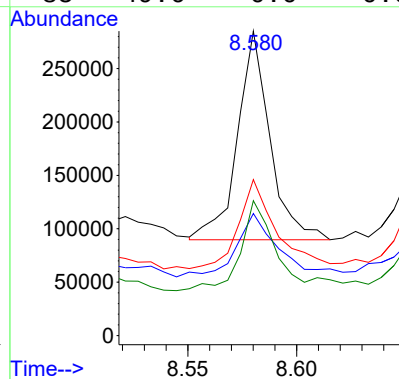
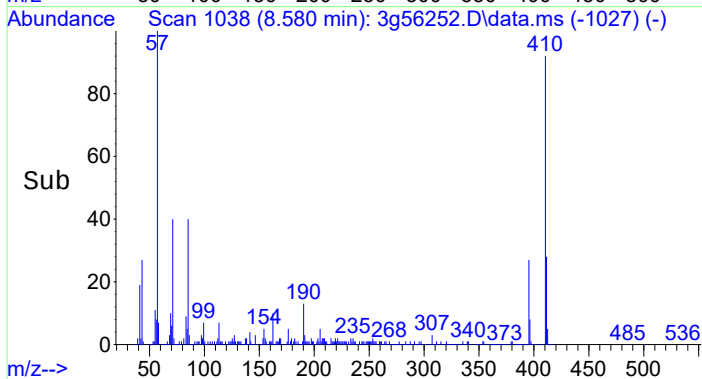
Tgt Ion:	57	Resp:	13877
Ion	Ratio	Lower	Upper
57	100		
43	0.0	0.0	0.0
71	92.1	0.0	0.0#
85	62.0	0.0	0.0#





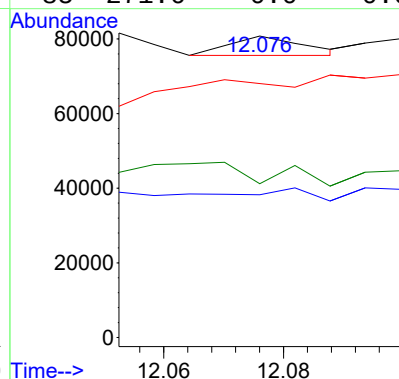
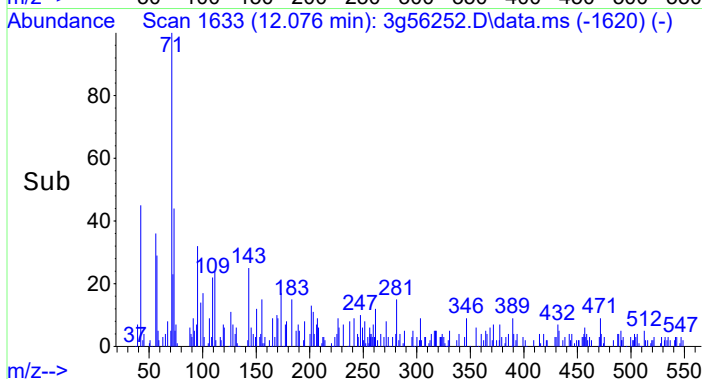
#35
n-Octacosane (C28)
Concen: N.D.
RT: 8.580 min Scan# 1038
Delta R.T. -0.035 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

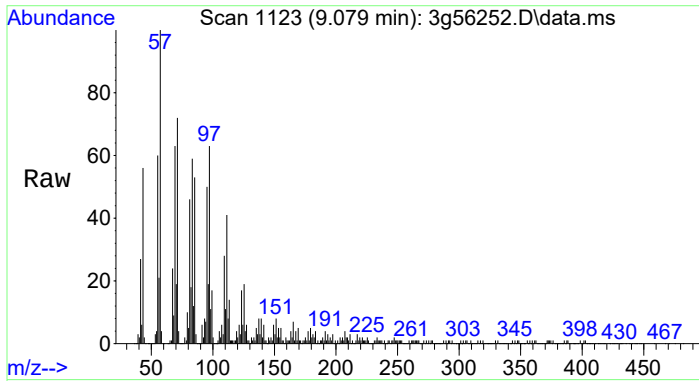
Tgt Ion:	57	Resp:	203072
Ion Ratio		Lower	Upper
57	100		
43	39.9	0.0	0.0#
71	50.0	0.0	0.0#
85	49.6	0.0	0.0#



#36
n-Nonacosane (C29)
Concen: N.D.
RT: 12.076 min Scan# 1633
Delta R.T. -0.024 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

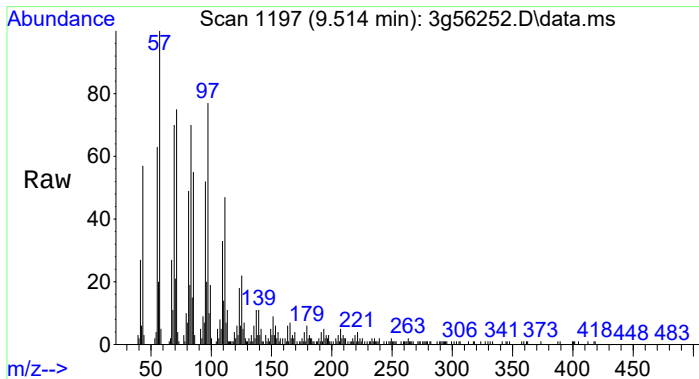
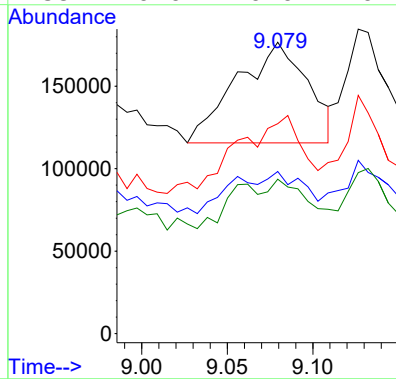
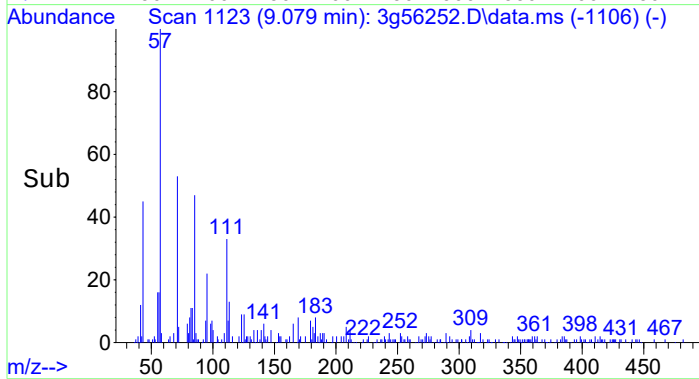
Tgt Ion:	57	Resp:	4450
Ion Ratio		Lower	Upper
57	100		
43	162.5	0.0	0.0#
71	706.1	0.0	0.0#
85	271.6	0.0	0.0#





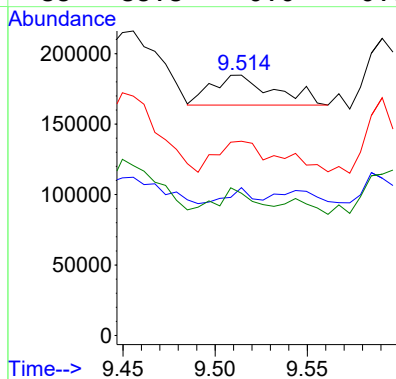
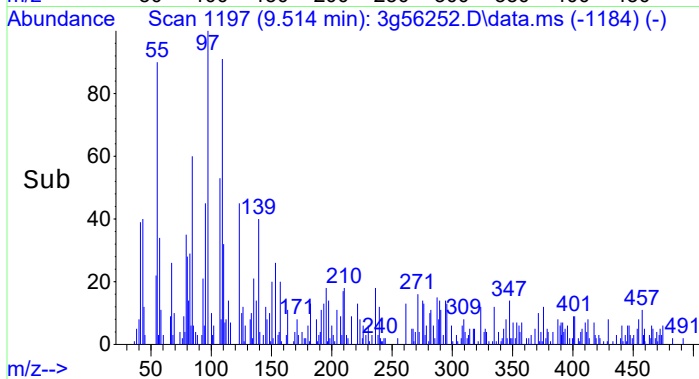
#37
n-Triacontane (C30)
Concen: N.D.
RT: 9.079 min Scan# 1123
Delta R.T. -0.001 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

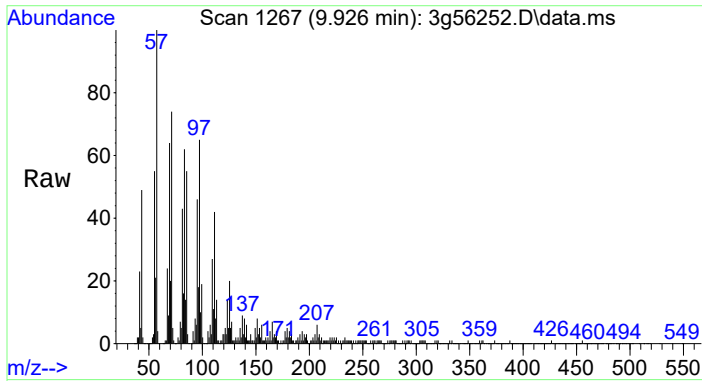
Tgt Ion:	57	Resp:	175647
Ion Ratio		Lower	Upper
57	100		
43	16.2	0.0	0.0#
71	71.3	0.0	0.0#
85	0.0	0.0	0.0



#38
n-Doatriacontane (C32)
Concen: N.D.
RT: 9.514 min Scan# 1197
Delta R.T. -0.024 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

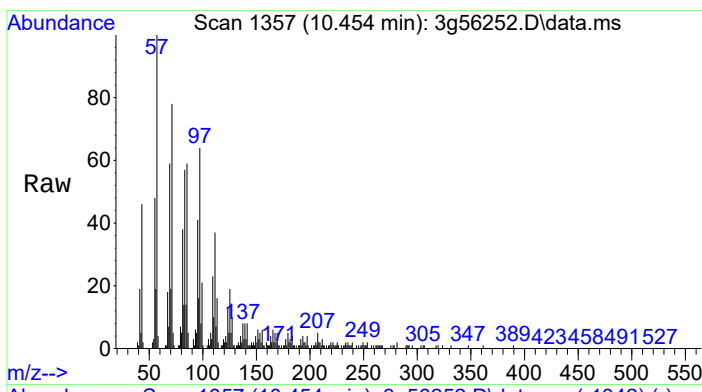
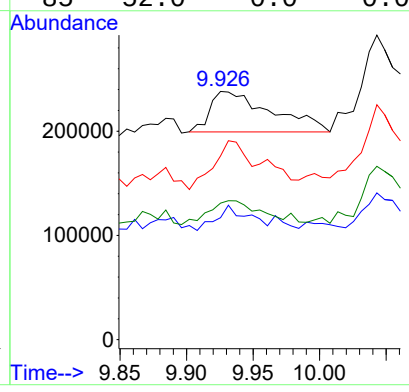
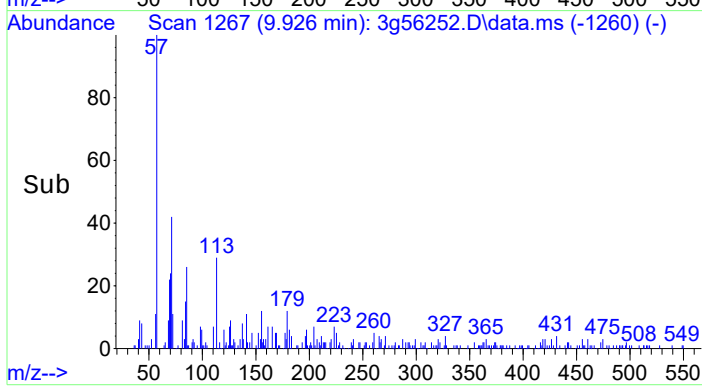
Tgt Ion:	57	Resp:	49750
Ion Ratio		Lower	Upper
57	100		
43	18.9	0.0	0.0#
71	101.9	0.0	0.0#
85	35.8	0.0	0.0#





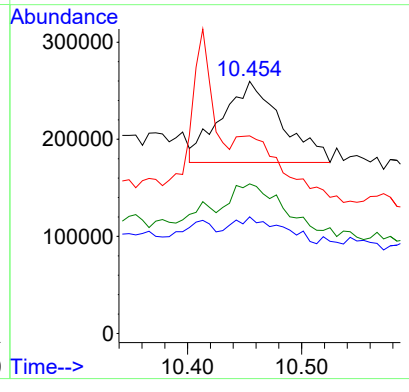
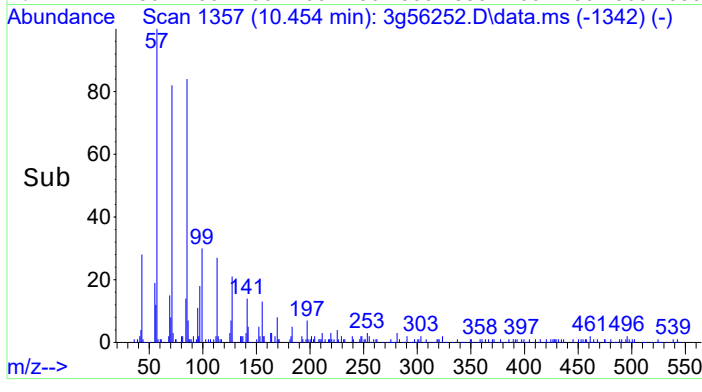
#39
n-Tetratriacontane (C34)
Concen: N.D.
RT: 9.926 min Scan# 1267
Delta R.T. -0.058 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

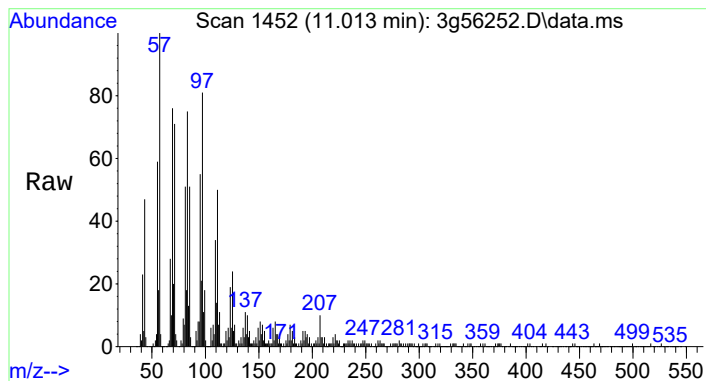
Tgt Ion:	57	Resp:	124889
Ion Ratio		Lower	Upper
57	100		
43	31.5	0.0	0.0#
71	70.5	0.0	0.0#
85	52.0	0.0	0.0#



#40
n-Hexatriacontane (C36)
Concen: N.D.
RT: 10.454 min Scan# 1357
Delta R.T. -0.012 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

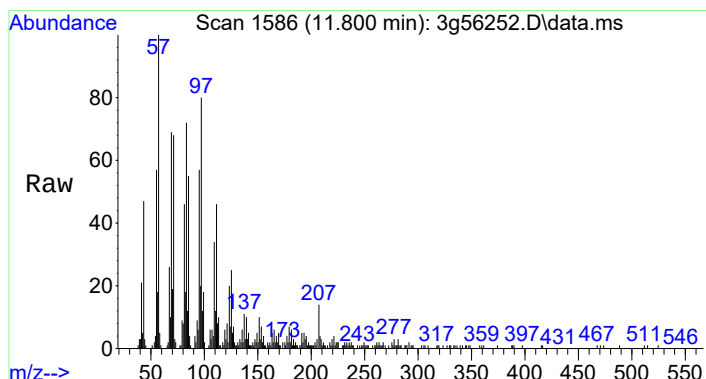
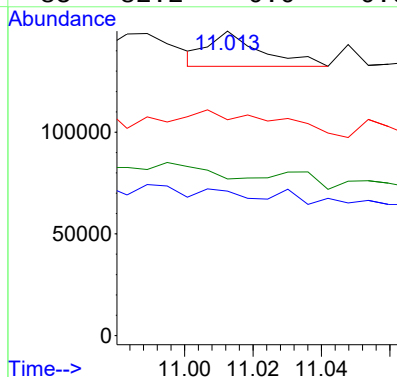
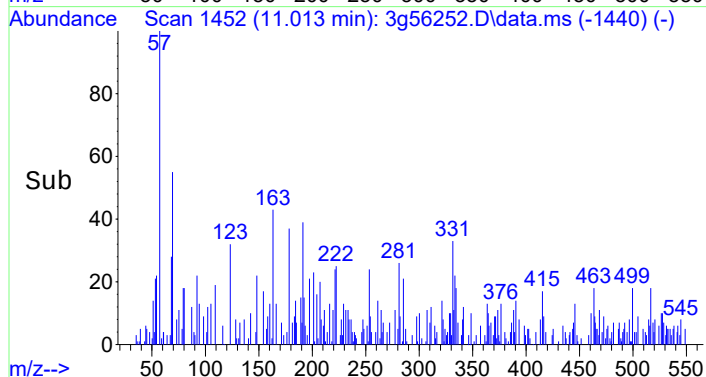
Tgt Ion:	57	Resp:	305641
Ion Ratio		Lower	Upper
57	100		
43	27.9	0.0	0.0#
71	0.0	0.0	0.0
85	60.1	0.0	0.0#





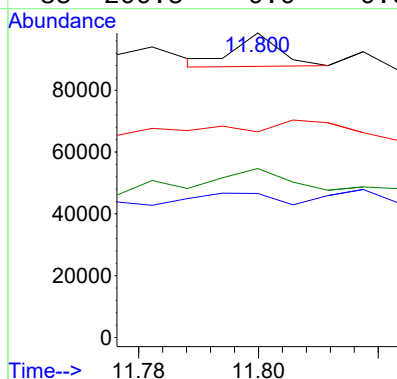
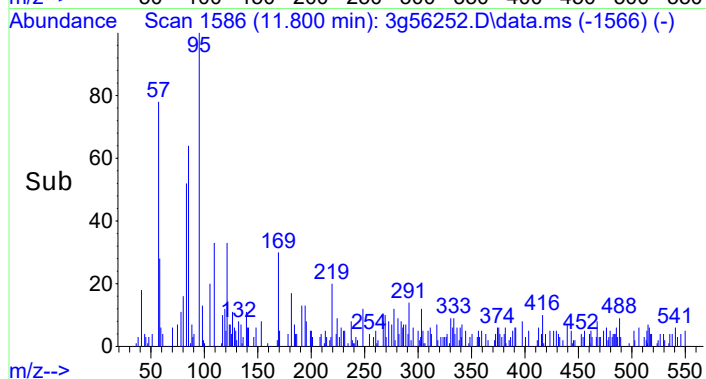
#41
n-Octatriacontane (C38)
Concen: N.D.
RT: 11.013 min Scan# 1452
Delta R.T. -0.029 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

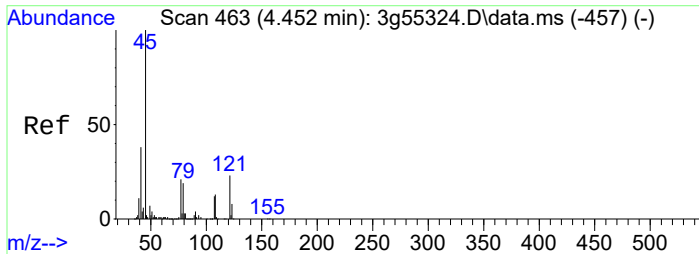
Tgt Ion:	57	Resp:	18074
Ion	Ratio	Lower	Upper
57	100		
43	0.0	0.0	0.0
71	0.0	0.0	0.0
85	82.2	0.0	0.0#



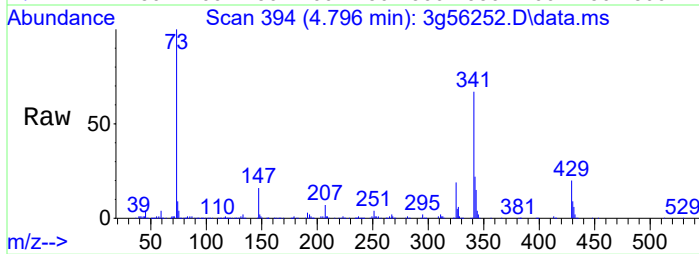
#42
n-Tetracontane (C40)
Concen: N.D.
RT: 11.800 min Scan# 1586
Delta R.T. 0.018 min
Lab File: 3g56252.D
Acq: 2 Jun 2024 12:13 am

Tgt Ion:	57	Resp:	5569
Ion	Ratio	Lower	Upper
57	100		
43	70.4	0.0	0.0#
71	94.1	0.0	0.0#
85	200.5	0.0	0.0#

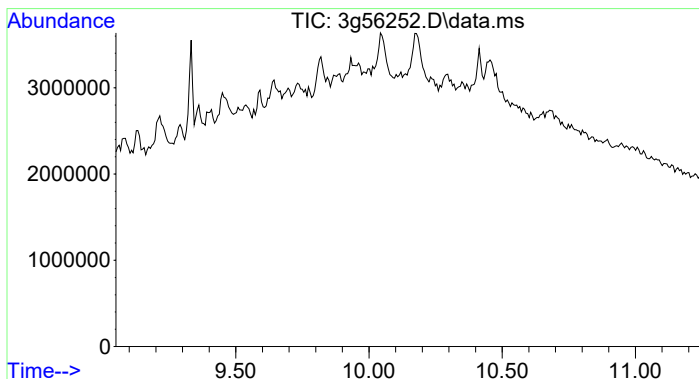
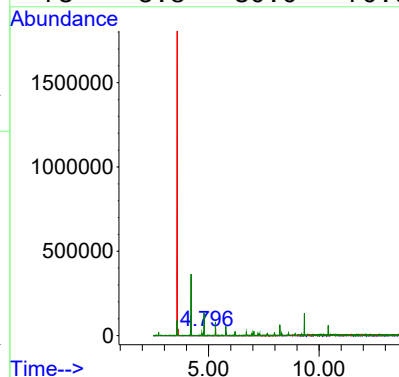
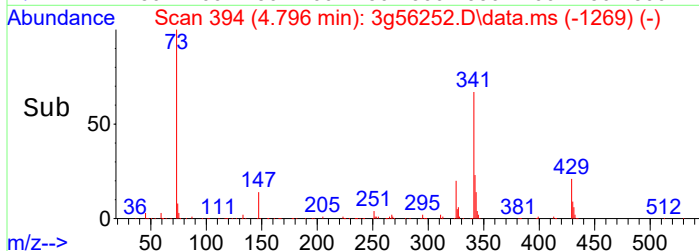




#43
 Siloxane
 Concen: 17.46 ppm m
 RT: 4.796 min Scan# 394
 Delta R.T. -5.240 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

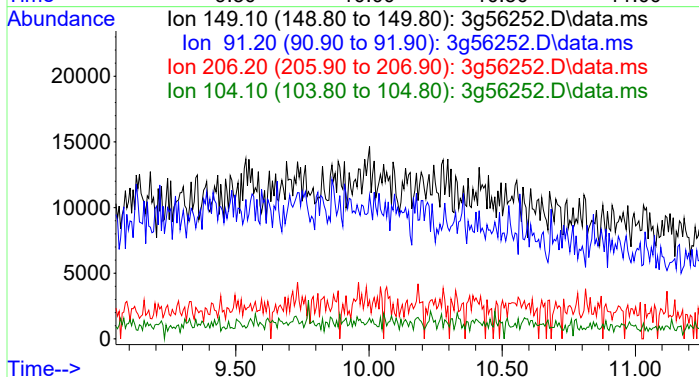


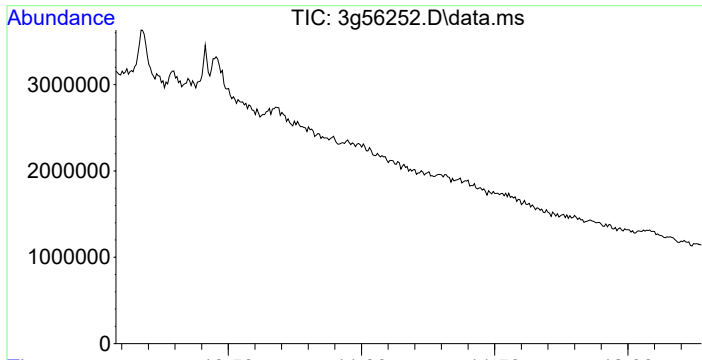
Tgt Ion: 429 Resp: 119750
 Ion Ratio Lower Upper
 429 100
 355 2.0 30.0 70.0#
 281 3.2 30.0 70.0#
 73 5.8 30.0 70.0#



#44
 Butyl benzyl phthalate
 Concen: N.D.
 Expected RT: 10.15 min
 Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 149
 Sig Exp Ratio
 149 100
 91 97.4
 206 28.9
 104 19.1

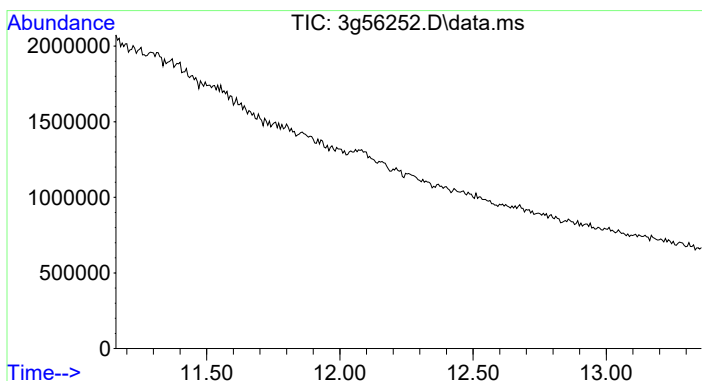
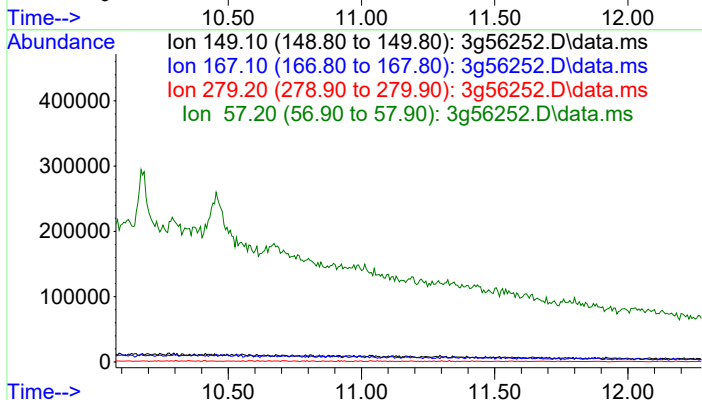




#45
 Bis(2-ethylhexyl)phthalate
 Concen: N.D.
 Expected RT: 11.18 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

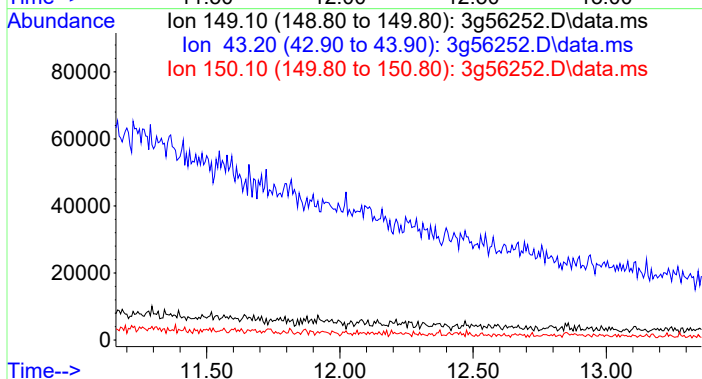
Tgt Ion: 149	
Sig	Exp Ratio
149	100
167	34.3
279	10.6
57	34.0



#46
 Di-n-octylphthalate
 Concen: N.D.
 Expected RT: 12.26 min

Lab File: 3g56252.D
 Acq: 2 Jun 2024 12:13 am

Tgt Ion: 149	
Sig	Exp Ratio
149	100
43	12.1
150	10.0



06 June 2024

NAVFAC Hawaii
400 Marshall Road
JBPHH HI 96860-3139**Subject: Joint Base Pearl Harbor-Hickam Drinking Water
EDWM GRO Detection Investigation
Zone D2, Hydrant 365**

Attention CDR Dunn:

On Saturday, 01 June 2024, AECOM was notified of a gasoline range organics (GRO) detection of 137 µg/L in sample D2-DL-0017717-24122-N, collected at hydrant 365 in Zone D2 on 29 May 2024. The sample was analyzed at (b) (4), CO via gas chromatography/mass spectrometry (GC/MS) using SW-846 Method 8260. GRO concentrations are calculated by summing the areas of all peaks eluting between the observed retention times for pentane (C5) and dodecane (C12), then subtracting out the areas attributable to the internal standards and surrogate standard added by the laboratory prior to analysis. Review of the chromatogram indicates that the reported concentration is due almost exclusively to a single large peak eluting just beyond three minutes; there are no other significant peaks and a fuel pattern was not observed. Since this sample was analyzed via GC/MS, the laboratory was able to isolate the peak and perform mass spectral analysis. The peak has been identified as isopropyl alcohol, a chemical used to decontaminate hydrant fittings prior to sampling. It is believed that isopropyl alcohol was introduced into the sample in the field as a direct result of the decontamination procedures.

The chromatogram from the 8260 analysis of D2-DL-0017717-24122-N is shown in Figure 1. The chromatogram contains a large peak (outlined in a red box) eluting between three and four minutes, a much smaller peak eluting at approximately 10.2 minutes, two internal standards and one surrogate standard.

Figure 2 displays the sample chromatogram (black) overlaid with a gasoline calibration standard (green), retention time marker (blue) and JP-5 (pink). The sample chromatogram does not display the characteristic patterns of either gasoline or JP-5. The peak observed at approximately 10 minutes does not overlap with any gasoline or JP-5 peaks and represents a negligible contribution to the reported concentration and therefore was not evaluated further.

Figure 1. D2-DL-0017717-24122-N

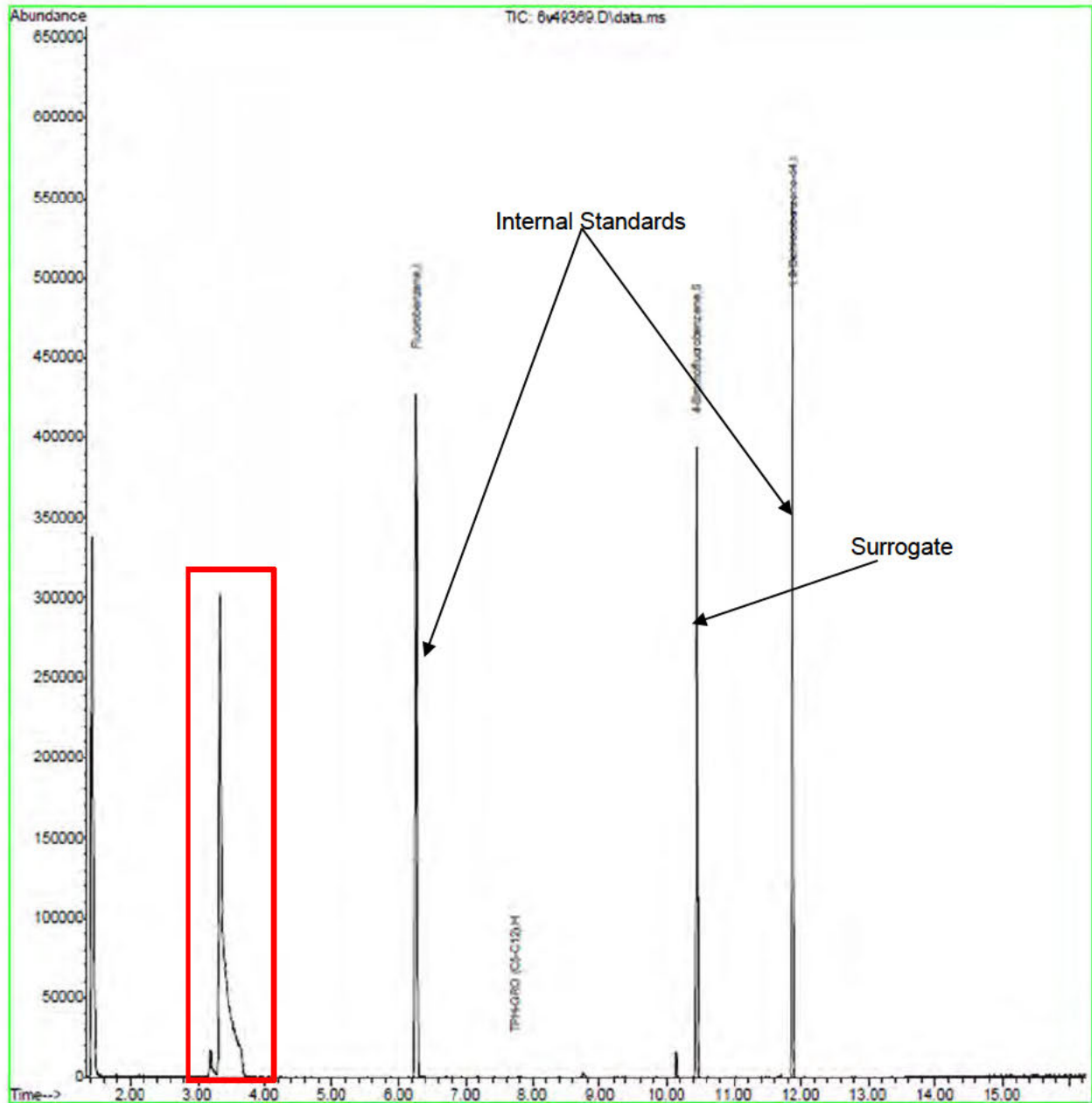
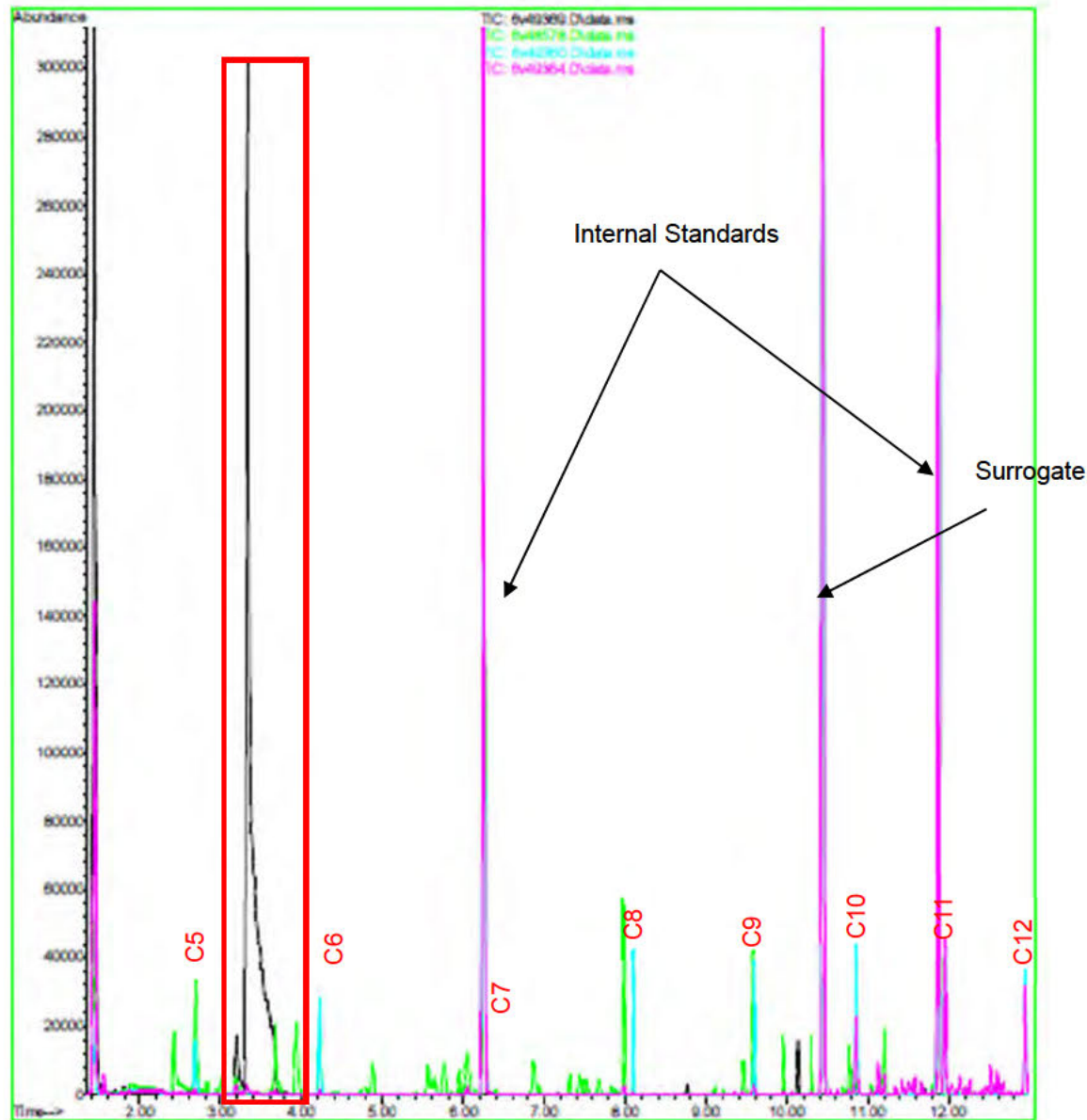
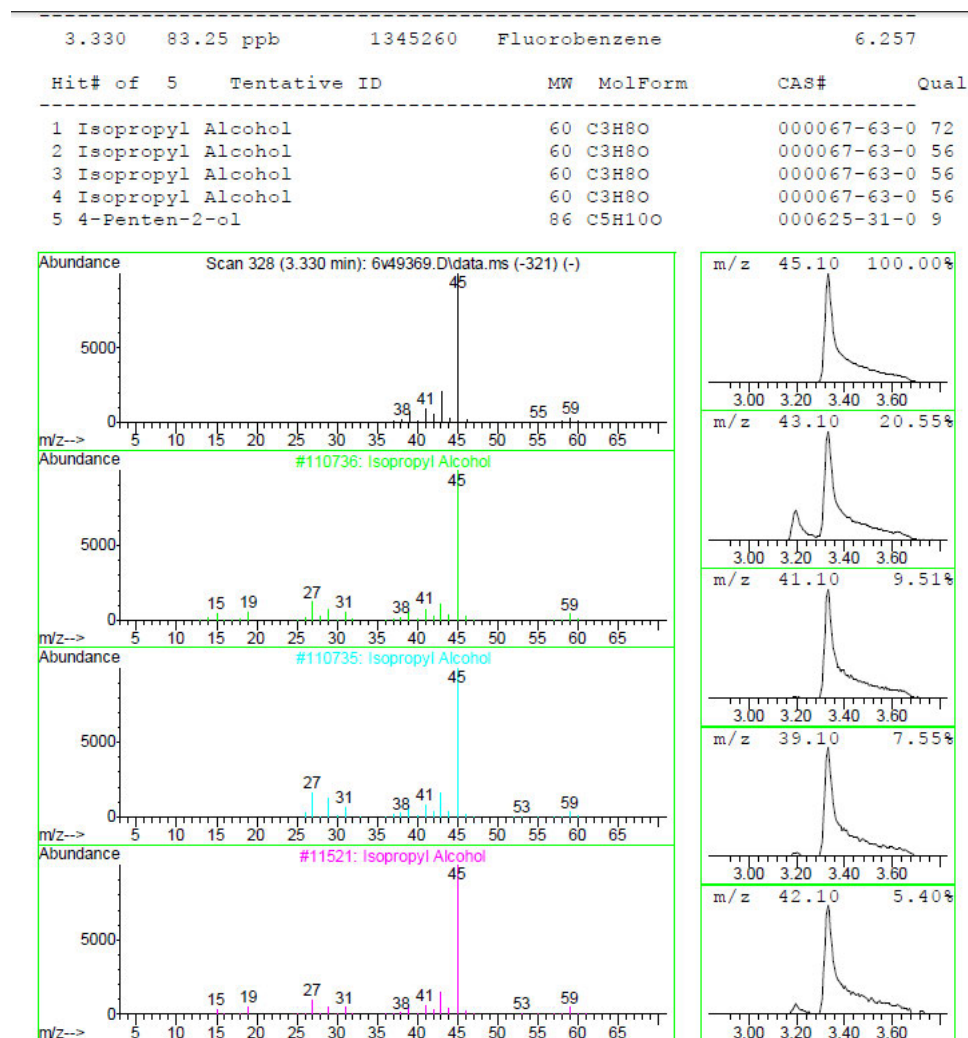


Figure 2. D2-DL-0017717-24122-N (Overlaid with a gasoline calibration standard (green), retention time marker (blue) and JP-5 (pink)).



Because GC/MS methods like 8260 allow for the evaluation of mass spectra leading to identification, the laboratory was able to conduct a Tier 1 analysis simultaneously. The mass spectrum is provided in Figure 3 and identifies the peak as isopropyl alcohol. The tailing peak shape, early RT, and mass spectrum are all consistent with isopropyl alcohol.

Figure 3. D2-DL-0017717-24122-N (8260 Mass Spectral Analysis)



The laboratory also noted that isopropyl alcohol was detected in the same sample analyzed by EPA Method 524.2, also a GC/MS method. It was not observed in either method blank, nor in any other samples collected or analyzed the same day. This suggests that the compound was present in the sample as received at the laboratory and is not the result of laboratory contamination. It is extremely unlikely that the water in the hydrant contained isopropyl alcohol, suggesting that the compound was introduced into the sample at the time of collection.

AECOM's standard operating procedure (SOP) for hydrant sampling specifies decontamination of the hydrant spigot fitting with isopropyl alcohol, followed by rinsing with deionized (DI) water prior to purging and sampling. The DI rinse and purging should have eliminated any traces of isopropyl alcohol, but it is possible that the rinsing was incomplete or that the isopropyl alcohol came into contact with another piece of equipment or the sampler's glove and was introduced into the sample.

AECOM concludes that the water from Hydrant 365 does not contain petroleum hydrocarbons. The GRO detection is the result of contamination with isopropyl alcohol in conjunction with decontamination procedures conducted on the hydrant prior to sampling. AECOM immediately instituted a stand down from all sampling activities. On Monday, 03 June 2024, AECOM reviewed sampling and decontamination

procedures with all sampling personnel. AECOM will ensure that any new sampling personnel are provided with SOP training prior to collecting any samples and will continue to conduct periodic refresher training with existing staff. Any modifications to SOPs will result in training for the entire team.

Questions regarding this letter should be addressed to (b) (6)

Yours sincerely,

(b) (6)

(b) (6)

Senior Project Chemist

(b) (6)

(b) (6)

CLEAN Program Manager

cc: (b) (6)

Appendix D. First Quarter (April – June 2024) of EDWM MS Results

Sample ID	Sample Date	Field Spike Concentration (ppb)	Laboratory Result (ppb)	Percent Difference
OP25463-MS	4/4/2024	74	103	139
OP25465-MS	4/5/2024	75	90.2	120
OP25477-MS	4/8/2024	75	59.8	79
OP25491-MS	4/11/2024	69	64.3	93
OP25492-MS	4/11/2024	68	71.2	104
OP25499-MS	4/12/2024	71	52.5	73
OP25519-MS	4/15/2024	70	72.5	103
OP25510-MS	4/15/2024	69	77.3	112
OP25515-MS	4/16/2024	70	84.9	121
OP25516-MS	4/16/2024	70	84.8	121
OP25522-MS	4/16/2024	70	78	111
OP25527-MS	4/17/2024	70	83	118
OP25528-MS	4/17/2024	69	85.3	123
OP25529-MS	4/18/2024	68	83.4	122
OP25539-MS	4/18/2024	68	69.1	101
OP25540-MS	4/19/2024	68	84.8	124
OP25541-MS	4/19/2024	69	71	102
OP25551-MS	4/22/2024	69	95.2	137
OP25552-MS	4/22/2024	68	63.8	93
OP25558-MS	4/23/2024	68	56.8	83
OP25559-MS	4/23/2024	69	55.7	80
OP25566-MS	4/24/2024	70	86.7	123
OP25567-MS	4/24/2024	69	96.1	139
OP25572-MS	4/25/2024	68	51.2	75
OP25573-MS	4/25/2024	72	73.7	102
OP25577-MS	4/26/2024	69	66.9	96
OP25587-MS	4/26/2024	72	78.3	108
OP25593-MS	4/29/2024	69	64.3	93
OP25594-MS	4/29/2024	70	66.1	94
OP25606-MS	4/30/2024	69	70	101
OP25605-MS	4/30/2024	69	62.1	90
OP25613-MS	5/1/2024	70	67.3	96
OP25614-MS	5/1/2024	70	70.3	100
OP25617-MS	5/2/2024	69	115	166
OP25618-MS	5/2/2024	68	64.9	95
OP25639-MS	5/3/2024	70	71.4	102
OP25655-MS	5/6/2024	69	63	91
OP25656-MS	5/6/2024	69	58.8	85
OP25663-MS	5/7/2024	68	59.4	87
OP25664-MS	5/7/2024	68	92.1	135
OP25665-MS	5/8/2024	68	79.4	116
OP25671-MS	5/8/2024	69	64.5	93
OP25672-MS	5/9/2024	68	62.3	91
OP25675-MS	5/10/2024	68	103	151
OP25676-MS	5/10/2024	68	47	69
OP25683-MS	5/13/2024	69	66.2	95
OP25684-MS	5/13/2024	68	67.8	99
OP25695-MS	5/14/2024	68	61.4	90
OP25696-MS	5/14/2024	68	67.1	98
OP25697-MS	5/15/2024	70	65.4	93
OP25698-MS	5/16/2024	69	77.9	112
OP25699-MS	5/16/2024	70	75.2	107
OP25717-MS	5/17/2024	69	68.6	99
OP25716-MS	5/17/2024	68	49.4	72
OP25724-MS	5/20/2024	69	65.8	95
OP25735-MS	5/21/2024	68	68.5	100
OP25736-MS	5/21/2024	68	73.4	107
OP25745-MS	5/22/2024	68	71.6	105

Appendix D. First Quarter (April – June 2024) of EDWM MS Results

Sample ID	Sample Date	Field Spike Concentration (ppb)	Laboratory Result (ppb)	Percent Difference
OP25744-MS	5/22/2024	69	72.9	105
OP25751-MS	5/23/2024	69	75.5	109
OP25752-MS	5/23/2024	68	68.1	100
OP25757-MS	5/24/2024	69	69	100
OP25764-MS	5/24/2024	68	84.2	123
OP25769-MS	5/28/2024	67	74.4	111
OP25789-MS	5/31/2024	68	72.3	106
OP25802-MS	6/3/2024	68	70.2	103
OP25816-MS	6/4/2024	69	83	120
OP25817-MS	6/3/2024	68	79.8	117
OP25824-MS	6/5/2024	68	75.8	111
OP25825-MS	6/5/2024	68	64.5	94
OP25837-MS	6/7/2024	69	79.5	115
OP25845-MS	6/10/2024	68	46	67
OP25844-MS	6/10/2024	68	52.8	77
OP25853-MS	6/11/2024	68	76.7	112
OP25873-MS	6/13/2024	70	77.9	111
OP25874-MS	6/13/2024	69	66.9	96
OP25883-MS	6/14/2024	69	90.7	131
OP25898-MS	6/18/2024	67	81.1	121
OP25906-MS	6/19/2024	68	72.5	106
OP25913-MS	6/20/2024	69	72	104
OP25912-MS	6/20/2024	69	76.8	111
OP25918-MS	6/21/2024	68	74.4	109
OP25928-MS	6/24/2024	69	77.4	112
OP25942-MS	6/26/2024	69	87.6	126
OP25972-MS	6/28/2024	68	84.9	124

Notes

Within the analytical laboratory acceptable percent difference limits of 70 - 130%.

Exceeds the analytical laboratory acceptable percent difference limits of 70 - 130%.

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-17396
Call Date/Time	4/2/2024 7:37:48 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/11/2024 12:00:00 PM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	212E 13th Street
Command	
Branch	
Property Manager	
Date of move-in	4/11/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	in the last month or so a pink film on is showing up "in the sink by the faucets" of the kitchen sink and bathrooms. asked if she is smelling anything with the water she i not, also asked if she is satisfied with the temp of the hot water, she was and there are no filters on the water systme, i explained a little bit about bilogic and said peter could expain much better during the appoitment. alos suggested she contact PPV for assistance with having her arrartors changed out. requested water, 2 in the home.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	Fixtures (sink / toilet / shower / tub)
	Resident is concerned about pink residue on kitchen faucet sprayer. Also mentioned that there was pink residue in the bathroom sink, which had been removed.
Scaling (visible surface buildup)	Yes

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Only cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.20
Conductivity (µS/cm)	230.00
FreeChlorine (mg/L or ppm)	0.52
Cold Temp (degrees F)	75.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.30
Conductivity (µS/cm)	239.00
FreeChlorine (mg/L or ppm)	0.34
Hot Temp (degrees F)	113.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Handheld sprayer
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present, Mold / Mildew
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Other Concerns

Water Pressure	
Hot Water Temperature	Too Cold
Cross-Connection	
Irrigation	

Call Center - WQI Checklist**Summary and Recommendations**

Water Heater Replacement	Yes
Fixture Replacement	Yes
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.

The water heater anode may require replacement followed by thorough flushing. Alternatively, replace the entire appliance. Heater temperature may require adjustment.

No additional actions required

Other Site Visit Notes

A small piece of white plastic or mineral scale was found on aerator for kitchen faucet sprayer. Pink residue on top of calcite scale found on kitchen faucet sprayer, where water appears to be dripping down after use. Material is likely growth of air-borne bacteria (species Serratia) on damp surfaces. Advised resident to keep areas around sinks dry; remove pink residue after 10

minutes of soaking in 50/50 vinegar/water solution, followed by disinfection with bleach-based cleaner.

Green, gel-like substance found on aerator at upstairs bathroom faucet, possibly magnesium hydroxide, resulting from corrosion and disintegration of the water heater anode.

Call Center - WQI Checklist

Photos

Ticket Number	17396
Location	Other
Title	Kitchen Faucet Sprayer



Call Center - WQI Checklist

Photos

Ticket Number	17396
Location	Other
Title	Kitchen Faucet Sprayer



Call Center - WQI Checklist

Photos

Ticket Number	17396
Location	Other
Title	Upstairs Bathroom Faucet



Call Center - WQI Checklist

Photos

Ticket Number	17396
Location	Other
Title	[No title]



Call Center - WQI Checklist

Photos

Ticket Number	17396
Location	Other
Title	[No title]



Call Center - WQI Checklist

Photos

Ticket Number

17396

Location

First Floor - Bathroom- Shower / Tub

Title

[No title]



Thursday 11 April 2024, 1200

Zone D2, 212E 13th Street

(Location Code: D2-13TH0212E)

A. Resident Concerns

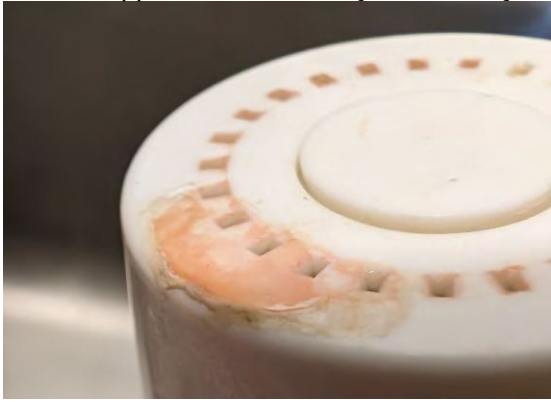
- Moved into the residence less than 1 year ago.
- Two adults, no children and no pets in home
- Resident is concerned about pink residue on kitchen faucet sprayer. Also mentioned that there was pink residue in the bathroom sink, which had been removed.
- Water is not used for drinking, but for all other purposes.
- Health concerns: None were mentioned relating to drinking water.

B. Water Quality Observations and Results

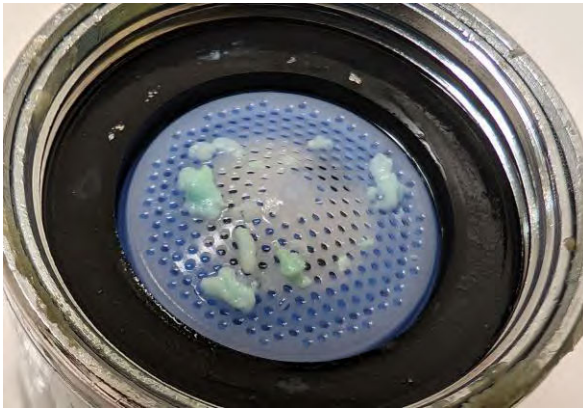
- Unit was previously sampled on 23 January 2023
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of barium, chromium, copper, and lead found.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from bathroom sink for rapid TPH test.
 - EDWM team collected cold water sample from upstairs bathroom.
- Results of field testing from kitchen sink:
 - pH 7.2 (cold), 7.3 (hot)
 - Conductivity 230 $\mu\text{S}/\text{cm}$ (cold water), 239 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.52 mg/L (cold), 0.34 mg/L (hot)
 - Cold Temp 75 °F
 - Hot Temp 112 °F (Kitchen), 113 °F (Upstairs bath)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- A small piece of white plastic or mineral scale was found on aerator for kitchen faucet sprayer.



- Pink residue on top of calcite scale found on kitchen faucet sprayer, where water appears to be dripping down after use. Material is likely growth of air-borne bacteria (species *Serratia*) on damp surfaces. Advised resident to keep areas around sinks dry; remove pink residue after 10 minutes of soaking in 50/50 vinegar/water solution, followed by disinfection with bleach-based cleaner.



- Green, gel-like substance found on aerator at upstairs bathroom faucet, possibly magnesium hydroxide, resulting from corrosion and disintegration of the water heater anode.



- C. Hot Water Heater
 - The electric water heater is 12 years old. The kitchen faucet temperature should not be below 115 °F; heater temperature may require adjustment.
- D. Point-of-Use Treatment
 - None
- E. Overall Assessment
 - No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.
- F. Recommendations
 - Follow up with EDWM water quality results when available.
 - The water heater anode may require replacement followed by thorough flushing. Alternatively, replace the entire appliance. Heater temperature may require adjustment.
 - No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	212E 13th Street	212E 13th Street	212E 13th Street
Field Sample ID:	D2-TW-0007528-24092-N-WQI	D2-TW-0007528-24092-N-C-WQI	D2-TW-0007528-24092-N-H-WQI
Sample Date:	2024-04-11	2024-04-11	2024-04-11
Sample Type:	N	N	N

Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	
BAC (CFU/100ml)					
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	SDG: 240411-2568-036
BAC (MPN/ml)					
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels			
Field Tests (mg/L)					
Free Chlorine	None	4	0.330	0.330	0.330
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	
GENCHEM (mg/L)					
Alkalinity, Total (as CaCO3)	None	None	50.0	--	--
Total Organic Carbon	None	None	0.360 J	--	--
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	
HC (µg/L)					
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
METAL (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	
Copper	1300	1300	31.4	--	--
Lead	15	15	0.330 J	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
SVOC (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
VOC (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63633A	SDG: 240411-2568-035	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.250 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Toluene	1000	1000	0.250 U	--	--
Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	3-17419
Call Date/Time	4/10/2024 11:30:29 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/11/2024 12:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	4115 Lounsbury Street
Command	
Branch	
Property Manager	
Date of move-in	10/1/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	3
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	1100

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	No sheen, particles, discoloraton, or cloudiness observed in hot or cold water.
Floating Particles	None
	No sheen, particles, discoloraton, or cloudiness observed in hot or cold water.
Taste	None
	No sheen, particles, discoloraton, or cloudiness observed in hot or cold water.
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Children One child has eczema, which has worsened since arriving on island. Wanted to ensure it skin rash is not related to the water.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Only cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None Not recorded.
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.30
Conductivity (µS/cm)	235.00
FreeChlorine (mg/L or ppm)	0.55
Cold Temp (degrees F)	76.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.30
Conductivity (µS/cm)	260.00
FreeChlorine (mg/L or ppm)	0.48
Hot Temp (degrees F)	120.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	Yes
	WD-100, Wedell Water NSF/ANSI 177
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	Resident

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure	
Hot Water Temperature	Good
Cross-Connection	
Irrigation	

Summary and Recommendations

Water Heater Replacement	Yes
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
Review water heater maintenance records. Given the age, consider replacing the unit.
No additional actions required.

Other Site Visit Notes

Observed scale buildup on kitchen faucet spout. Should be cleaned after soaking in vinegar/water solution to avoid attachment of bacteria.

Black and brown mineral particles found in kitchen faucet aerator. They may originate from debris entering the water pipes during repairs. Recommended occasional checking/cleaning to ensure faucet flow capacity is not impaired

Call Center - WQI Checklist

Photos

Ticket Number	17419
Location	Other
Title	Kitchen Faucet



Call Center - WQI Checklist

Photos

Ticket Number	17419
Location	[No Coverage]
Title	[No title]



Call Center - WQI Checklist

Photos

Ticket Number

17419

Location

First Floor - Bathroom- Shower / Tub

Title

[No title]



Thursday 11 April 2024, 1330

Zone F2, 4115 Lounsbury Street
(Location Code: F2-LOUN4115)

A. Resident Concerns

- Moved into the residence less than 1 year ago.
- Two adults, three young children. No pets observed in home.
- Water is not used for drinking, but for all other purposes.
- Health concerns:
 - One child has eczema, which has worsened since arriving on island. Wanted to ensure it skin rash is not related to the water.
 - Asked for testing up- and downstream of installed shower filter.
 - Asked about PFAS in drinking water relating to AFFF spill at Red Hill

B. Water Quality Observations and Results

- Unit was previously sampled on 24 March 2022 and 18 August 2023
 - No unusual observations.
 - No detections of organic chemicals, except traces of disinfection byproducts (THMs)
 - Traces of barium, chromium, copper, lead, and selenium found.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from kitchen sink for rapid TPH test.
 - EDWM team collected cold water sample from upstairs bathroom.
- Results of field testing from kitchen sink:
 - pH 7.3 (cold), 7.3 (hot)
 - Conductivity 235 $\mu\text{S}/\text{cm}$ (cold water), 260 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.55 mg/L (cold), 0.48 mg/L (hot)
 - Cold Temp 76 °F
 - Hot Temp 120 °F (Kitchen)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed scale buildup on kitchen faucet spout. Should be cleaned after soaking in vinegar/water solution to avoid attachment of bacteria.



- Black and brown mineral particles found in kitchen faucet aerator. They may originate from debris entering the water pipes during repairs. Recommended occasional checking/cleaning to ensure faucet flow capacity is not impaired.



C. Hot Water Heater

- The electric – solar water heater was made in 2007.
- Observed plastic piping downstream of heater.

D. Point-of-Use Treatment

- Shower filter (WD-100, Wedell Water, Anaheim, CA). Unit is NSF 177 certified for chlorine removal only and has recently been installed. Advised resident to replace cartridges periodically as recommended by the manufacturer.

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Review water heater maintenance records. Given the age, consider replacing the unit.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	4115 Lounsbury Street	4115 Lounsbury Street	4115 Lounsbury Street
Field Sample ID:	F2-TW-0009889-24092-N-WQI	F2-TW-0009889-24092-N-C-WQI	F2-TW-0009889-24092-N-H-WQI
Sample Date:	2024-04-11	2024-04-11	2024-04-11
Sample Type:	N	N	N

Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
BAC (CFU/100ml)					
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	SDG: 240411-2568-038
BAC (MPN/ml)					
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels			
Field Tests (mg/L)					
Free Chlorine	None	4	0.430-0.540	0.430-0.540	0.430-0.540
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
GENCHEM (mg/L)					
Alkalinity, Total (as CaCO ₃)	None	None	52.5	--	--
Total Organic Carbon	None	None	0.200 U	--	--
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
HC (µg/L)					
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
METAL (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
Copper	1300	1300	2.90	--	--
Lead	15	15	0.130 U	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
SVOC (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
VOC (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.250 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Toluene	1000	1000	0.250 U	--	--
Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and

the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-17403
Call Date/Time	4/8/2024 10:31:55 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/12/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	4645 Ke Street
Command	
Branch	
Property Manager	
Date of move-in	4/12/2022 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	One day there was a "slugging" or a surge in the water line and the resident noticed small particles and a "film" after it happened. the family experiences dry skin/itchy skin after showering. they do not notice smells (except Husband said wife is more sensitive to smells so she may have noticed something) no sheen has been reported. all showers have filters on them, husband admits he has not changed out filters and that would need to be done. told him it may be worth it to have PPV change the aerators or at least remove them and rinse them. does not want water delivered

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	One-time event only
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	Other
	Noticed a surge in the water and sediments on one day.
Floating Particles	Other
	Sediments
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Dry skin after showering.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History

Water Quality Concerns

Cold water Sampling Location	Kitchen
pH (standard units)	7.00
Conductivity (µS/cm)	237.00
FreeChlorine (mg/L or ppm)	0.68
Cold Temp (degrees F)	75.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.10
Conductivity (µS/cm)	254.00
FreeChlorine (mg/L or ppm)	0.42
Hot Temp (degrees F)	115.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Call Center - WQI Checklist**Filtration Systems**

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	Yes
	unidentified shower filtered in upstairs bathroom. Likely not NSF/ANSI certified.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	Resident

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Handheld sprayer
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	Sink faucet
Bathroom - other - Condition of aerator	Scaling / Debris / Particulates present

Other Concerns

Water Pressure	
Hot Water Temperature	Good
Cross-Connection	Unprotected
Irrigation	

Call Center - WQI Checklist**Summary and Recommendations**

Water Heater Replacement	Yes
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
 Review water heater maintenance records. Given the age, consider replacing the unit.
 Advise resident of questionable effectiveness of shower filter. Recommend removal or replacement with NSF-certified unit.
 No additional actions required.

Other Site Visit Notes

Observed scale buildup on kitchen faucet spout. Should be cleaned after soaking in vinegar/water solution to avoid attachment of bacteria.

Found mineral scale on one bathroom faucet aerator, and a small particle on another.

Found mold on shower door track.

The hose attached to the spout in the slop sink in the utility room presents a potential cross connection.

A pipe, branching off from the supply to the heater, appears to be routed to the irrigation system without backflow prevention.

Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Kitchen Faucet Spout



Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Kitchen Faucet Spout



Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Bathroom Faucet Aerator



Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Bathroom Faucet Aerator



Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Shower Door Track



Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Slop Sink



Call Center - WQI Checklist

Photos

Ticket Number	17403
Location	Other
Title	Pipe routed to the irrigation system without backflow prevention



Friday 12 April 2024, 0800

Zone H1, 4645 Ke Street

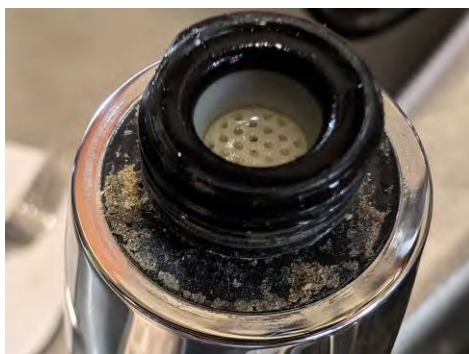
(Location Code: H1-KEST4645)

A. Resident Concerns

- Resident was not present. May have been at residence more than 2 years.
- Health concerns:
 - Residents experiencing dry skin after showering
- Water Quality Concern:
 - Noticed a surge in the water and sediments on one day.
 - No smells or other issues.

B. Water Quality Observations and Results

- Unit was previously sampled on 25 September 2023
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of barium, chromium, copper, lead, and selenium found.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from kitchen sink for rapid TPH test.
 - EDWM team collected cold water sample from kitchen sink. Due to the presence of fragrances and resulting high PID readings, the bathroom could not be sampled.
- Results of field testing from kitchen sink:
 - pH 7.0 (cold), 7.1 (hot)
 - Conductivity 237 $\mu\text{S}/\text{cm}$ (cold water), 254 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.68 mg/L (cold), 0.42 mg/L (hot), 0.52 mg/L (shower with filter)
 - Cold Temp 75 °F
 - Hot Temp 115 °F
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed scale buildup on kitchen faucet spout. Should be cleaned after soaking in vinegar/water solution to avoid attachment of bacteria.



- Found mineral scale on one bathroom faucet aerator, and a small particle on another.



- Found mold on shower door track.



- The hose attached to the spout in the slop sink in the utility room presents a potential cross connection.



- A pipe, branching off from the supply to the heater, appears to be routed to the irrigation system without backflow prevention.



C. Hot Water Heater

- The electric water heater was made in 2009. The heater is no longer connected to solar roof panels but has recently been plumbed to receive waste heat from the adjacent air conditioning

unit. The pipe material is copper. A thermostatic mixing valve is installed between the cold supply and hot water line.

- Hot water heater plastic piping in the wall

D. Point-of-Use Treatment

- Shower filter installed in the upstairs bathroom with no label indicating make or model. Unit looks similar Aqua Home Group product, which is not NSF-certified. Unit has likely never been replaced. Field test showed that it does not remove chlorine.

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Review water heater maintenance records. Given the age, consider replacing the unit.
- Advise resident of questionable effectiveness of shower filter. Recommend removal or replacement with NSF-certified unit.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	4115 Lounsbury Street	4115 Lounsbury Street	4115 Lounsbury Street
Field Sample ID:	F2-TW-0009889-24092-N-WQI	F2-TW-0009889-24092-N-C-WQI	F2-TW-0009889-24092-N-H-WQI
Sample Date:	2024-04-11	2024-04-11	2024-04-11
Sample Type:	N	N	N

Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
BAC (CFU/100ml)					
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	SDG: 240411-2568-038
BAC (MPN/ml)					
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels			
Field Tests (mg/L)					
Free Chlorine	None	4	0.430-0.540	0.430-0.540	0.430-0.540
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
GENCHEM (mg/L)					
Alkalinity, Total (as CaCO3)	None	None	52.5	--	--
Total Organic Carbon	None	None	0.200 U	--	--
Environmental					
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
HC (µg/L)					
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
METAL (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
Copper	1300	1300	2.90	--	--
Lead	15	15	0.130 U	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
SVOC (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents					
VOC (µg/L)		Protection Agency Maximum Contaminant Levels	SDG: DA63635A	SDG: 240411-2568-037	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.250 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Toluene	1000	1000	0.250 U	--	--
Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and

the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-17475
Call Date/Time	4/13/2024 10:32:19 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/16/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5891 Gannet Avenue
Command	
Branch	
Property Manager	
Date of move-in	1/1/2023 12:00:00 AM
Number of adults under 65	1
Number of adults 65 and older	0
Number of school age children under 18	2
Number of infants under the age of 2	0
Number and type of pets	2 small dogs
Call Center Complaint Summary / Initial Notes	in the home for a year has heard that the water is very bad on garnet st her neighbor has had issues and she wants to be proactive and have a test done. the only issues is her daughter is having "skin issues" but didn't say rashes or the like she said "but she is 16 so that may be it" leading me to believe the issue is increased acne, not other issues with smell or sheen. wants water 4 home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None None reported
Floating Particles	None None reported
Taste	None None reported
Odor	None None reported
Staining	None None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Children Pre-teen daughter experiences skin issues. Resident acknowledges that they may not be related to the water quality. Twin son has no issues.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Bathroom
Are your neighbors experiencing the same issue?	Yes
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.23
Conductivity (µS/cm)	233.00
FreeChlorine (mg/L or ppm)	0.61
Cold Temp (degrees F)	74.00
Hot water Sampling Location	Other
pH (standard units)	7.48
Conductivity (µS/cm)	284.00
FreeChlorine (mg/L or ppm)	0.42
Hot Temp (degrees F)	129.00
Water Quality Notes	Other: bathroom sink. No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	True
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present, Staining present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	Sink faucet
Bathroom - other - Condition of aerator	Scaling / Debris / Particulates present, Staining present

Call Center - WQI Checklist**Other Concerns**

Water Pressure	Good
Hot Water Temperature	Good
Cross-Connection	No
Irrigation	

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
No additional actions required.

Other Site Visit Notes

Observed heavy calcite scale buildup on all outlets.

Observed two small black particles on kitchen faucet aerator. Bathroom aerator was clean.
Housing showed heavy external scale and minor brass corrosion.

Hot Water Heater
The 40-gallon gas water heater was made in 2009.
Hot water heater plastic piping in the wall.

Call Center - WQI Checklist

Photos

Ticket Number	17475
Location	Other
Title	Kitchen Faucet Aerator



Call Center - WQI Checklist

Photos

Ticket Number	17475
Location	Other
Title	Scale Build Up



Tuesday 16 April 2024, 0800

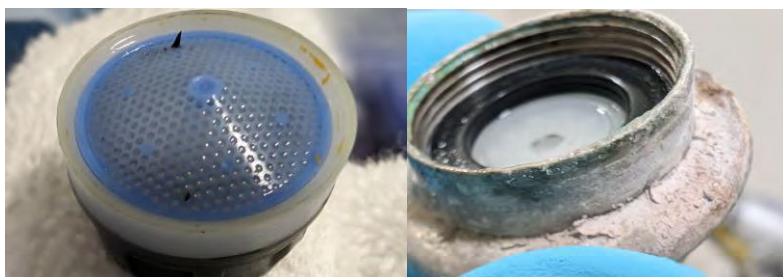
Zone A3, 5891 Gannet Avenue
(Location Code: A3-GANN5891)

A. Resident Concerns

- One adult, two pre-teen children, two small dogs.
- Resident at address for 1 year and 4 months. Has previously lived there (pre-RH spill).
- Water used for all purposes, except drinking.
- Health concerns:
 - Pre-teen daughter experiences skin issues. Resident acknowledges that they may not be related to the water quality. Twin son has no issues.
- Water Quality Concern: None
- Recent plumbing repairs: None

B. Water Quality Observations and Results

- Unit was previously sampled on 14 March 2023
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of antimony, bromoform, barium, chromium, copper, lead, selenium, thallium found, all well below regulatory limits.
 - Traces of bromoform, a disinfection byproduct, found.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from kitchen sink for rapid TPH test.
 - EDWM team collected cold water sample from kitchen sink.
- Results of field testing from bathroom sink:
 - pH 7.23 (cold), 7.48(hot)
 - Conductivity 233 $\mu\text{S}/\text{cm}$ (cold water), 284 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.61 mg/L (cold), 0.42 mg/L (hot)
 - Cold Temp 74 °F
 - Hot Temp 129 °F
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed heavy calcite scale buildup on all outlets
- Observed two small black particles on kitchen faucet aerator. Bathroom aerator was clean. Housing showed heavy external scale and minor brass corrosion.



C. Hot Water Heater

- The 40-gallon gas water heater was made in 2009.
- Hot water heater plastic piping in the wall

D. Point-of-Use Treatment

- No filters installed

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5891 Gannet Avenue	5891 Gannet Avenue	5891 Gannet Avenue
Field Sample ID:	A3-TW-0012483-24092-N-C-WQI	A3-TW-0012483-24092-N-WQI	A3-TW-0012483-24092-N-H-WQI
Sample Date:	2024-04-16	2024-04-16	2024-04-16
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	
Coliform	None	None	0.00 U	--	--
E. coli	None	None	0.00 U	--	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	SDG: 240416-2568-041
Heterotrophic Plate Count	None	None	2.00 U	--	2.00 U

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.420-0.610	0.420-0.610	0.420-0.610

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	
Alkalinity, Total (as CaCO3)	None	None	--	52.5	--
Total Organic Carbon	None	None	--	0.200 U	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	
Petroleum Hydrocarbons (as Diesel)	None	None	--	47.0 U	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	--	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	--	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	--	ND	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	
Copper	1300	1300	--	16.3	--
Lead	15	15	--	0.210 J	--
Mercury	2	2	--	0.0250 U	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	
1-Methylnaphthalene	None	None	--	0.250 U	--
2-Methylnaphthalene	None	None	--	0.250 U	--
Benzo(a)pyrene	0.2	0.2	--	0.0100 U	--
Naphthalene	None	None	--	0.250 U	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: 240416-2568-041	SDG: DA63717	
1,2,4-Trimethylbenzene	None	None	--	0.260 U	--
1,3,5-Trimethylbenzene	None	None	--	0.250 U	--
Benzene	5	5	--	0.250 U	--
Bromodichloromethane	None	None	--	0.250 U	--
Bromoform	None	None	--	0.460 J	--
Chloroform	None	None	--	0.250 U	--
Dibromochloromethane	None	None	--	0.390 J	--
Ethylbenzene	700	700	--	0.250 U	--
m,p-Xylene	None	None	--	0.250 U	--
o-Xylene	None	None	--	0.250 U	--
Toluene	1000	1000	--	0.250 U	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	--	0.85	--
Xylenes, Total	10000	10000	--	ND	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	3-18560
Call Date/Time	4/16/2024 1:20:05 PM
Call Center Operator	(b) (6)
Location Type	Non-Residence
Scheduled Visit (Date/Time)	4/17/2024 10:00:00 AM

Call Center Information

Caller/Resident Information

Name	
Address	Building 683,DIVING/PERISCOPE SHOP, B667 Waterfront St
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	0
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	1000

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	None
Are your neighbors experiencing the same issue?	
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.52
Conductivity (µS/cm)	238.00
FreeChlorine (mg/L or ppm)	0.04
Cold Temp (degrees F)	74.00
Hot water Sampling Location	Other
pH (standard units)	8.08
Conductivity (µS/cm)	259.00
FreeChlorine (mg/L or ppm)	0.34
Hot Temp (degrees F)	117.00
Water Quality Notes	Noted low to no chlorine residuals and elevated pH in hot and cold water. This may be related to stagnant water in the distribution system. No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	
Do you have point-of-use filters?	Yes
	There was a filter installed for the water fountain (Pentair Everpure BH2, NSF-certified under Standard 42, 53, and 401). It was last replaced on 16 Apr 2024.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	I don't know

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	
Kitchen sink - Condition of aerator	
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	Other
Bathroom - other - Condition of aerator	Staining present

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Advise public works to test chlorine residuals in the mains adjacent to Building 683. Based on findings, perform hydrant flushing as needed. Re-test chlorine residuals in building.

Recommend follow-up visit to test field parameters (pH, chlorine residual, etc.)

Advise facilities maintenance of code compliance for water heater pressure relief discharge pipe.

No additional actions required.

Other Site Visit Notes

Observed significant scale buildup at drinking fountain.

There was a massive accumulation of rust and mineral particles on the bathroom faucet aerator. Advised tenant to have aerator replaced.

The 12-gallon electric water heater is located in the space above the bathroom, and it appeared less than 5 years old. There was a kinked garden hose attached to the pressure relief valve, which pointed upwards, creating a considerable scalding hazard.

Call Center - WQI Checklist

Photos

Ticket Number	18560
Location	Other
Title	Observed significant scale buildup at drinking fountain



Call Center - WQI Checklist

Photos

Ticket Number	18560
Location	Other
Title	Bathroom Faucet Aerator



Call Center - WQI Checklist

Photos

Ticket Number	18560
Location	Hot Water Heater
Title	Hot Water Heater



Tuesday 17 April 2024, 1000

Zone C1, Building 683, Waterfront Street
(Location Code: C1-BLDG0683)

A. Tenant Concerns

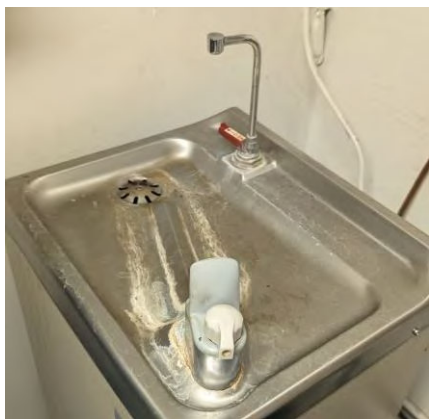
- No health or water quality concerns were communicated.

B. Water Quality Observations and Results

- Unit was previously sampled on 13 October 2022
 - No unusual observations.
 - There were trace detections of barium, chromium, copper and petroleum hydrocarbons (as diesel).
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from downstairs sink for rapid TPH test.
 - EDWM team collected cold water sample from upstairs rest room sink.
- Results of field testing from downstairs (basement) bathroom sink:
 - pH 7.52 (cold), 8.08 (hot)
 - Conductivity 238 $\mu\text{S}/\text{cm}$ (cold water), 259 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.04 mg/L (cold), 0.34 mg/L (hot, after flushing)
 - Cold Temp 74 °F
 - Hot Temp 117 °F

Noted low to no chlorine residuals and elevated pH in hot and cold water. This may be related to stagnant water in the distribution system.

- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed significant scale buildup at drinking fountain.



- There was a massive accumulation of rust and mineral particles on the bathroom faucet aerator. Advised tenant to have aerator replaced.



C. Hot Water Heater

- The 12-gallon electric water heater is located in the space above the bathroom, and it appeared less than 5 years old. There was a kinked garden hose attached to the pressure relief valve, which pointed upwards, creating a considerable scalding hazard.



D. Point-of-Use Treatment

- There was a filter installed for the water fountain (Pentair Everpure BH², NSF-certified under Standard 42, 53, and 401). It was last replaced on 16 Apr 2024.

E. Overall Assessment

- Potential for stagnant water in the system.
- Water quality is adequate. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Advise public works to test chlorine residuals in the mains adjacent to Building 683. Based on findings, perform hydrant flushing as needed. Re-test chlorine residuals in building.
- Recommend follow-up visit to test field parameters (pH, chlorine residual, etc.)
- Advise facilities maintenance of code compliance for water heater pressure relief discharge pipe.
- No additional actions required.

Summary of Chemistry Results
Zone C1
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	C1-BLDG0683		
				Location Type:	Non-Residence		
				Address:	Building 683,DIVING/PERISCOPE SHOP, B667 Waterfront St		
				Field Sample ID:	C1-TW-0014657-24092-N-WQI	C1-TW-0014657-24092-N-C-WQI	C1-TW-0014657-24092-N-H-WQI
				Sample Date:	2024-04-17	2024-04-17	2024-04-17
				Sample Type:	N (Normal)	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level				
Bacterial Test (in 100 mL)	Coliform	--	--	--	Absent	--	
	E. coli	--	--	--	Absent	--	
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	--	ND		ND
Field Test (ppb)	Free Chlorine	4000	MCL	140	210		210
Field Test (pH)	pH	--	--	7.42	7.37		7.38
Field Test (ms/cm)	Specific Conductivity	--	--	0.240	0.240		0.260
Field Test (degrees Celcuis)	Temperature	--	--	25.2	25.8		44.1
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.410	0.360		0.490
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	52500	--		--
	Total Organic Carbon	--	--	ND	--		--
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--		--
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--		--
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--		--
	Petroleum Hydrocarbons, Total	--	--	ND	--		--
Metals (ppb)	Copper	1300	MCL	7.00	--		--
	Lead	15	MCL	0.160	--		--
	Mercury	2	MCL	ND	--		--
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--		--
	2-Methylnaphthalene	--	--	ND	--		--
	Benzo(a)pyrene	0.2	MCL	ND	--		--
	Naphthalene	--	--	ND	--		--

Summary of Chemistry Results
Zone C1
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	C1-BLDG0683		
				Location Type:	Non-Residence		
				Address:	Building 683,DIVING/PERISCOPE SHOP, B667 Waterfront St		
				Field Sample ID:	C1-TW-0014657-24092-N-WQI	C1-TW-0014657-24092-N-C-WQI	C1-TW-0014657-24092-N-H-WQI
				Sample Date:	2024-04-17	2024-04-17	2024-04-17
				Sample Type:	N (Normal)	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level				
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--	--	--
	1,3,5-Trimethylbenzene	--	--	ND	--	--	--
	Benzene	5	MCL	ND	--	--	--
	Ethylbenzene	700	MCL	ND	--	--	--
	m,p-Xylene	--	--	ND	--	--	--
	o-Xylene	--	--	ND	--	--	--
	Toluene	1000	MCL	ND	--	--	--
	Xylenes, Total	10000	MCL	ND	--	--	--
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	--	--
	Bromoform	--	--	1.50	--	--	--
	Chloroform	--	--	ND	--	--	--
	Dibromochloromethane	--	--	0.600	--	--	--
	Total Trihalomethanes	80	MCL	2.10	--	--	--

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-18569
Call Date/Time	4/16/2024 3:16:46 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/17/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	15 Julian Avenue
Command	
Branch	
Property Manager	
Date of move-in	4/1/2020 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	1 dog
Call Center Complaint Summary / Initial Notes	ON DAY OF SAMPLE RESIDENT REFUSED THE RRT TEST In march Mrs. (b) (6) had a bad rash didn't say anything/report to the EOC. She is now reporting a worse reaction after showering then she has had in a while. called it report her reactions, asked if she wanted a test and she seemed non committal due to the past tests and nothing getting better but after talking and letting her know that we could sample the next day to hopeful "catch/test the water that was cycling in the home now that was giving her such a bad reaction" she relented and consented to a sample. made statemts like she is jsut tired of the water and wants it fixed. did not watn water

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	4/17/2024 12:00:00 AM
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	Other
	White residue on drain board for dish rack.
Scaling (visible surface buildup)	Yes

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Residents experiencing rashes after showering.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	Continuously
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.25
Conductivity (µS/cm)	236.00
FreeChlorine (mg/L or ppm)	0.43
Cold Temp (degrees F)	71.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.55
Conductivity (µS/cm)	244.00
FreeChlorine (mg/L or ppm)	0.24
Hot Temp (degrees F)	125.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	True
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Other Concerns

Water Pressure
Hot Water Temperature
Cross-Connection
Irrigation

Call Center - WQI Checklist**Summary and Recommendations**

Water Heater Replacement	Yes
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
Review water heater installation record. Depending on age, consider replacing the unit.
No additional actions required.

Other Site Visit Notes

Observed white residue on black plastic drain board next to kitchen sink. It did not appear to be soap scum or mineral scale. It is possible that the plastic surface has degraded due to direct sunlight or the use of harsh, alcohol-based cleaners, leaving white marks.

Observed calcite buildup on most outlets.

There were several small black particles and a sand grain on the kitchen faucet aerator screen.

A piece of rubber was found in the aerator of one of the upstairs guest bathroom faucets. The other aerators were clean.

The electric water heater was made by AO Smith. The manufacturing date is not known. The heater is no longer connected to solar roof panels but has recently been plumbed to receive waste heat from the adjacent air conditioning unit. The pipe material is copper. A thermostat mixing valve is installed between the cold supply and hot water line.

Unit showed signs of past leaks and external corrosion at bottom of tank.

No Photos Found

Call Center - WQI Checklist

Tuesday 17 April 2024, 0800

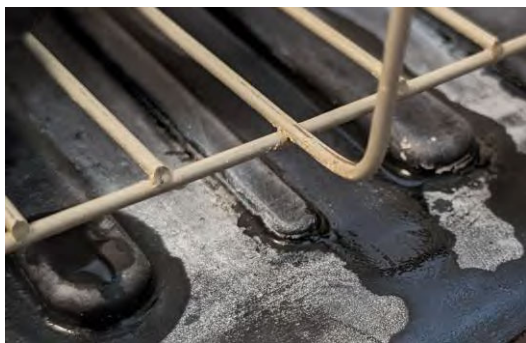
Zone D2, 15 Julian Avenue
(Location Code: D2-JULI0015)

A. Resident Concerns

- Resident for 4 years at address. Two adults, one dog.
- Health concerns:
 - Residents experiencing rashes after showering
- Water Quality Concern:
 - White residue on drain board for dish rack.

B. Water Quality Observations and Results

- Unit was previously sampled on 29 March 2022, 20 October 2023, and 12 February 2024. Additionally, the water heater drain was sampled on 7 December 2023.
 - No unusual observations.
 - Traces of barium, bromoform, chromium, copper, dibromoacetic acid, dibromochloromethane, lead, petroleum hydrocarbons (as diesel), selenium, and thallium found.
- Residence was also evaluated as part of the Fall 2023 premise plumbing assessment. No unusual observations were made.
- WQAT & EDWM crew on site. CPLO was not present.
 - WQAT did not collect rapid TPH test.
 - EDWM team collected cold water sample from master bathroom sink.
- Results of field testing from kitchen sink:
 - pH 7.25 (cold), 7.55 (hot)
 - Conductivity 236 $\mu\text{S}/\text{cm}$ (cold water), 244 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.43 mg/L (cold), 0.24 mg/L (hot)
 - Cold Temp 71 °F
 - Hot Temp 125 °F
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed white residue on black plastic drain board next to kitchen sink. It did not appear to be soap scum or mineral scale. It is possible that the plastic surface has degraded due to direct sunlight or the use of harsh, alcohol-based cleaners, leaving white marks.



- Observed calcite buildup on most outlets.



- There were several small black particles and a sand grain on the kitchen faucet aerator screen. A piece of rubber was found in the aerator of one of the upstairs guest bathroom faucets. The other aerators were clean.



C. Hot Water Heater

- The electric water heater was made by AO Smith. The manufacturing date is not known. The heater is no longer connected to solar roof panels but has recently been plumbed to receive waste heat from the adjacent air conditioning unit. The pipe material is copper. A thermostatic mixing valve is installed between the cold supply and hot water line.
- Unit showed signs of past leaks and external corrosion at bottom of tank.



D. Point-of-Use Treatment

- No filters installed

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.

Appendix E. EDWM Quarter 1 WQAT Summary Tech Memos/Checklists

- Review water heater installation record. Depending on age, consider replacing the unit.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	15 Julian Avenue	15 Julian Avenue	15 Julian Avenue
Field Sample ID:	D2-TW-0008053-24092-N-WQI	D2-TW-0008053-24092-N-C-WQI	D2-TW-0008053-24092-N-H-WQI
Sample Date:	2024-04-17	2024-04-17	2024-04-17
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	SDG: 240417-2568-042
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.300-0.370	0.300-0.370	0.300-0.370

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	
Alkalinity, Total (as CaCO3)	None	None	50.0	--	--
Total Organic Carbon	None	None	0.200 U	--	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	
Petroleum Hydrocarbons (as Diesel)	None	None	48.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	48.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	
Copper	1300	1300	32.7	--	--
Lead	15	15	0.210 J	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	
1-Methylnaphthalene	None	None	0.260 U	--	--
2-Methylnaphthalene	None	None	0.260 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.260 U	--	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63757	SDG: 240417-2568-042	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.250 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--
Toluene	1000	1000	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	6-22173
Call Date/Time	11/6/2024 7:53:51 AM
Call Center Operator	(b) (6)
Location Type	Non-Residence
Scheduled Visit (Date/Time)	4/17/2024 9:00:00 AM

Call Center Information**Caller/Resident Information**

Name	
Address	Building 62,NAVY FCU/PACDIV ROICC
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	0
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	Visited NAVFAC portion of building; employee coordinating building maintenance issues requested testing.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported.
Floating Particles	None
	None reported.
Taste	None
	None reported.
Odor	None
	None reported.
Staining	None
	None reported.
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	None
Are your neighbors experiencing the same issue?	
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location

pH (standard units)

Conductivity (µS/cm)

FreeChlorine (mg/L or ppm)

Cold Temp (degrees F)

Hot water Sampling Location

pH (standard units)

Conductivity (µS/cm)

FreeChlorine (mg/L or ppm)

Hot Temp (degrees F)

Water Quality Notes

Location was previously sampled on 13 September 2022:

No detections of organic chemicals.

Traces of barium, chromium, and copper found.

Sample was collected from breakroom kitchen sink and no chlorine was detected. The carbon filter observed during this visit may have already been present, causing the non-detect for chlorine. Prior results may not reflect water quality in the premise plumbing. No field testing performed (other than by EDWM team). No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?

No

Do you have point-of-use filters?

Yes

There are filters installed for the water fountain and under the kitchen sink (Pentair Everpure BH2, NSF-certified under Standard 42, 53, and 401). Both filters were replaced in February 2024.

Kitchen sink

Refrigerator

Bathroom - first floor

Bathroom - second floor

Bathroom - second floor

Bathroom - other

Who installed the water filter

Call Center - WQI Checklist**Water Fixtures**

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	
Kitchen sink - Condition of aerator	
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Other Concerns

Water Pressure
Hot Water Temperature
Cross-Connection
Irrigation

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	No
	Follow up with EDWM water quality results when available. No additional actions required.
Other Site Visit Notes	There were some mineral particles on faucet aerator screen in the women's rest room. A 6-gallon electric water heater is located under the kitchen counter in the breakroom. The heater did not have a discharge pipe attached to the pressure relief valve. Piping is made from copper. There was evidence of excessive use of solder under the sink.

Call Center - WQI Checklist

Photos

Ticket Number	22173
Location	Other
Title	Women's restroom faucet aerator screen



Tuesday 17 April 2024, 0900

Zone F1, Address Radford Drive (Navy Federal Credit Union, NAVFAC PAC)
(Location Code: F1-BLDG0062)

A. Tenant Concerns

- Visited NAVFAC portion of building; employee coordinating building maintenance issues requested testing.
- Health concerns: None
- Water Quality Concern: None

B. Water Quality Observations and Results

- Location was previously sampled on 13 September 2022:
 - No detections of organic chemicals.
 - Traces of barium, chromium, and copper found.
 - Sample was collected from breakroom kitchen sink and no chlorine was detected. The carbon filter observed during this visit may have already been present, causing the non-detect for chlorine. Prior results may not reflect water quality in the premise plumbing.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from breakroom kitchen sink for rapid TPH test.
 - EDWM team collected cold water sample from women's room sink. Due to the presence of a filter, the breakroom kitchen could not be sampled. EDWM team sampled hot water from kitchen sink (no filter) for HPCs.
- No field testing performed (other than by EDWM team).
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- There were some mineral particles on faucet aerator screen in the women's rest room.



C. Hot Water Heater

- A 6-gallon electric water heater is located under the kitchen counter in the breakroom.
- The heater did not have a discharge pipe attached to the pressure relief valve.
- Piping is made from copper. There was evidence of excessive use of solder under the sink.

D. Point-of-Use Treatment

- There are filters installed for the water fountain and under the kitchen sink (Pentair Everpure BH², NSF-certified under Standard 42, 53, and 401). Both filters were replaced in February 2024.

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- No additional actions required.

Summary of Chemistry Results
Zone F1
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	F1-BLDG0062		
				Location Type:	Non-Residence		
				Address:	Building 62,NAVY FCU/PACDIV ROICC		
				Field Sample ID:	F1-TW-0015373-24092-N-WQI	F1-TW-0015373-24092-N-C-WQI	F1-TW-0015373-24092-N-H-WQI
				Sample Date:	2024-04-17	2024-04-17	2024-04-17
				Sample Type:	N (Normal)	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level				
Bacterial Test (in 100 mL)	Coliform	--	--	--	Absent	--	
	E. coli	--	--	--	Absent	--	
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	--	ND		ND
Field Test (ppb)	Free Chlorine	4000	MCL	390	390		410
Field Test (pH)	pH	--	--	7.39	--		7.41
Field Test (ms/cm)	Specific Conductivity	--	--	0.250	--		0.250
Field Test (degrees Celcuis)	Temperature	--	--	25.0	--		29.5
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.200	--		0.200
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	52500	--		--
	Total Organic Carbon	--	--	ND	--		--
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--		--
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--		--
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--		--
	Petroleum Hydrocarbons, Total	--	--	ND	--		--
Metals (ppb)	Copper	1300	MCL	99.0	--		--
	Lead	15	MCL	0.160	--		--
	Mercury	2	MCL	ND	--		--
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--		--
	2-Methylnaphthalene	--	--	ND	--		--
	Benzo(a)pyrene	0.2	MCL	ND	--		--
	Naphthalene	--	--	ND	--		--
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--		--

Summary of Chemistry Results
Zone F1
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	F1-BLDG0062		
				Location Type:	Non-Residence		
				Address:	Building 62,NAVY FCU/PACDIV ROICC		
				Field Sample ID:	F1-TW-0015373-24092-N-WQI	F1-TW-0015373-24092-N-C-WQI	F1-TW-0015373-24092-N-H-WQI
				Sample Date:	2024-04-17	2024-04-17	2024-04-17
				Sample Type:	N (Normal)	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level				
Volatile Organic Compounds (ppb)	1,3,5-Trimethylbenzene	--	--	ND	--	--	--
	Benzene	5	MCL	ND	--	--	--
	Ethylbenzene	700	MCL	ND	--	--	--
	m,p-Xylene	--	--	ND	--	--	--
	o-Xylene	--	--	ND	--	--	--
	Toluene	1000	MCL	ND	--	--	--
	Xylenes, Total	10000	MCL	ND	--	--	--
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	--	--
	Bromoform	--	--	ND	--	--	--
	Chloroform	--	--	ND	--	--	--
	Dibromochloromethane	--	--	ND	--	--	--
	Total Trihalomethanes	80	MCL	ND	--	--	--

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-18536
Call Date/Time	4/15/2024 3:24:51 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/18/2024 9:30:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	3072 Arizona Road
Command	
Branch	
Property Manager	
Date of move-in	10/1/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	1
Number and type of pets	2 dogs
Call Center Complaint Summary / Initial Notes	has family commiig into town that is exteremaly parniord about the water and would like a new test done, they do see a older test on the safe waters website but would like ot be up to date for their vistors. they are not expericeing anything with the water no sheen, smell, helath issue (baby has eczma but they do not think its connected) wants water 5 in the home.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	None
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None No recent plumbing repairs
--------------------------	------------------------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.27
Conductivity (µS/cm)	227.00
FreeChlorine (mg/L or ppm)	0.44
Cold Temp (degrees F)	76.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.42
Conductivity (µS/cm)	270.00
FreeChlorine (mg/L or ppm)	0.29
Hot Temp (degrees F)	117.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	I don't know
Do you have point-of-use filters?	Yes
	Residents consume water from the refrigerator dispenser. Resident replaces installed filter based on built-in indicator; replacement cartridges are provided by PPV housing. Filter element was not examined but is likely similar product observed elsewhere (Whirlpool Corporation, EDR1RXD1, certified under NSF/ANSI 42, 53, 401, and CSA Standard B483.1.)
Kitchen sink	
Refrigerator	Water dispenser
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	True
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement Yes

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Follow-up with PPV housing to have corroded parts and recirculation pump replaced on hot water heater. Have the heater drained and flushed. Given its age, consider anode replacement.

No additional actions required.

Other Site Visit Notes

Observed scale buildup on kitchen sink spray nozzles. There were small black and white mineral particles on the aerator screen. Some small particles were also observed on the aerator screen in one bathroom sink. Advised the resident to have aerators replaced.

The 80-gallon solar-electric water heater was made in 2019. There is new flexible copper piping that transitions to plastic piping in the wall. Observed evidence of past leaks of the recirculation pump and advanced external corrosion on brass fixings.

Resident stated that the automatic timer has been disabled to ensure availability of hot water throughout the day. The solar water recirculation loop is not isolated, and the thermostat and the pump were both plugged in.

Call Center - WQI Checklist

Photos

Ticket Number	18536
Location	Other
Title	Kitchen Sink Spray Nozzle



Call Center - WQI Checklist

Photos

Ticket Number

18536

Location

Other

Title

Kitchen Sink Spray Nozzle Aerator Screen



Call Center - WQI Checklist

Photos

Ticket Number	18536
Location	Other
Title	Hot Water Heater



Thursday 18 April 2024, 0930

Zone F2, 3072 Arizona Road
(Location Code: F2-ARIZ3072)

A. Resident Concerns

- Two adults, one infant, two dogs; living at residence for 18 months.
- Residents are expecting visitors who are concerned about the water quality.
- Residents use the water for all purposes; they use filtered tap water for drinking.
- Health concerns: None related to water.
- Water Quality Concern: None. Resident mentioned occasional mold growth on caulk around wet areas. This is expected in a humid climate and not drinking water quality related.
- Recent plumbing repairs: None.

B. Water Quality Observations and Results

- Unit was previously sampled on 1 July 2022
 - No unusual observations.
 - No detections of organic chemicals, other than trace amounts of disinfection byproducts, dibromochloromethane and bromoform
 - Traces of barium, chromium, lead, and copper found.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water samples from kitchen and upstairs bathroom sinks for rapid TPH test.
 - EDWM team collected cold water samples from upstairs bathroom sink.
- Results of field testing from kitchen sink:
 - pH 7.27 (cold), 7.42 (hot)
 - Conductivity 227 $\mu\text{S}/\text{cm}$ (cold water), 270 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.44 mg/L (cold), 0.29 mg/L (hot)
 - Cold Temp 76 °F
 - Hot Temp 117 °F
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed scale buildup on kitchen sink spray nozzles. There were small black and white mineral particles on the aerator screen. Some small particles were also observed on the aerator screen in one bathroom sink. Advised the resident to have aerators replaced.



C. Hot Water Heater

- The 80-gallon solar-electric water heater was made in 2019. There is new flexible copper piping that transitions to plastic piping in the wall. Observed evidence of past leaks of the recirculation pump and advanced external corrosion on brass fittings



Resident stated that the automatic timer has been disabled to ensure availability of hot water throughout the day. The solar water recirculation loop is not isolated, and the thermostat and the pump were both plugged in.

D. Point-of-Use Treatment

- Residents consume water from the refrigerator dispenser. Resident replaces installed filter based on built-in indicator; replacement cartridges are provided by PPV housing. Filter element was not examined but is likely similar product observed elsewhere (Whirlpool Corporation, EDR1RXD1, certified under NSF/ANSI 42, 53, 401, and CSA Standard B483.1.).

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Follow-up with PPV housing to have corroded parts and recirculation pump replaced on hot water heater. Have the heater drained and flushed. Given its age, consider anode replacement.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	3072 Arizona Road	3072 Arizona Road	3072 Arizona Road
Field Sample ID:	F2-TW-0011045-24092-N-WQI	F2-TW-0011045-24092-N-C-WQI	F2-TW-0011045-24092-N-H-WQI
Sample Date:	2024-04-18	2024-04-18	2024-04-18
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	SDG: 240418-2568-045
Heterotrophic Plate Count	None	None	--	2.00 U	4.00

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.390-0.820	0.390-0.820	0.390-0.820

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	
Alkalinity, Total (as CaCO3)	None	None	55.0	--	--
Total Organic Carbon	None	None	0.200 U	--	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	
Petroleum Hydrocarbons (as Diesel)	None	None	48.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 UJ	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	48.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	
Copper	1300	1300	3.40	--	--
Lead	15	15	0.130 U	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63796	SDG: 240418-2568-045	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.550	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.450 J	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--
Toluene	1000	1000	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	1	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-18590
Call Date/Time	4/17/2024 11:25:24 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/19/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	641 Apollo Avenue
Command	
Branch	
Property Manager	
Date of move-in	8/1/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	1
Number of infants under the age of 2	0
Number and type of pets	1 dog
Call Center Complaint Summary / Initial Notes	has GI issues on and off, there is a earthy smell in the water from time to time, resident has a general concern and wants a test didnt want water

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	Adults Recent occurrence of GI issues
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.31
Conductivity (µS/cm)	246.00
FreeChlorine (mg/L or ppm)	0.49
Cold Temp (degrees F)	72.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.50
Conductivity (µS/cm)	259.00
FreeChlorine (mg/L or ppm)	0.04
Hot Temp (degrees F)	116.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water. No unusual taste or odor.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.

Review water heater maintenance records. Given the age, consider replacing the unit. At a minimum, the appliance needs to be drained and flushed thoroughly. It is suggested to schedule flushing ASAP, and retest hot water chlorine residuals.

Adjust the thermostatic mixing valve at the water heater to ensure hot water temperatures above 115 °F at all outlets.

No additional actions required.

Other Site Visit Notes

While the hot water temperature was adequate in the kitchen, it was below 115 °F at the bathroom outlets.

Chlorine residual was barely detectable in hot water even after flushing. EDWM team confirmed observation in the upstairs bathroom. Chlorine was detected at trace concentrations in hot water sampled from the heater drain.

Faucet aerator screens in kitchen and in downstairs bathroom had accumulated some mineral particles, which, based on appearance, could originate from water heater corrosion and anode deterioration.

The 80-gallon electric water heater was made in 2011. It used to be connected to solar roof panels but has recently been plumbed to receive waste heat from the adjacent air conditioning unit. The pipe material is copper. A thermostatic mixing valve is installed between the cold supply and hot water line.

Call Center - WQI Checklist

Photos

Ticket Number	18590
Location	First Floor - Bathroom - Sink
Title	Faucet Aerator Screen



Call Center - WQI Checklist

Photos

Ticket Number	18590
Location	First Floor - Bathroom - Sink
Title	Faucet Aerator Screen



Friday 19 April 2024, 0800

D2, 641 Apollo Avenue

(Location Code: D2-APOL0641)

A. Resident Concerns

- Two adults, one child, one dog, residing at address since August 2023
- Health concerns:
 - Recent occurrence of GI issues; resident suspects it may have been due to food but requested testing to confirm it is not due to drinking water.
 - Water is used for all purposes except drinking.
 - Water quality concerns: None.

B. Water Quality Observations and Results

- Unit was previously sampled on 13 January 2022
 - No unusual observations.
 - No organic chemicals were detected.
 - Traces of arsenic, barium, chromium, copper, and lead found.
- WQAT & EDWM crew on site, CPLO was not present.
 - WQAT collected cold water sample from kitchen sink for rapid TPH test.
 - EDWM team collected cold water samples from upstairs bathroom sink.
- Results of field testing from kitchen sink:
 - pH 7.31 (cold), 7.5 (hot)
 - Conductivity 246 $\mu\text{S}/\text{cm}$ (cold water), 259 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.49 mg/L (cold), 0.04 mg/L (hot, trace amount)
 - Cold Temp 72 °F
 - Hot Temp 116 °F
- While the hot water temperature was adequate in the kitchen, it was below 115 °F at the bathroom outlets.
- Chlorine residual was barely detectable in hot water even after flushing. EDWM team confirmed observation in the upstairs bathroom. Chlorine was detected at trace concentrations in hot water sampled from the heater drain.
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water. No unusual taste or odor.
- Faucet aerator screens in kitchen and in downstairs bathroom had accumulated some mineral particles, which, based on appearance, could originate from water heater corrosion and anode deterioration.



C. Hot Water Heater

- The 80-gallon electric water heater was made in 2011. It used to be connected to solar roof panels but has recently been plumbed to receive waste heat from the adjacent air conditioning unit. The pipe material is copper. A thermostatic mixing valve is installed between the cold supply and hot water line.

D. Point-of-Use Treatment

- None

E. Overall Assessment

- Other than low chlorine residuals in hot water, water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Review water heater maintenance records. Given the age, consider replacing the unit. At a minimum, the appliance needs to be drained and flushed thoroughly. It is suggested to schedule flushing ASAP, and retest hot water chlorine residuals.
- Adjust the thermostatic mixing valve at the water heater to ensure hot water temperatures above 115 °F at all outlets.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	641 Apollo Avenue	641 Apollo Avenue
Field Sample ID:	D2-TW-0007196-24092-N-C-WQI	D2-TW-0007196-24092-N-H-WQI
Sample Date:	2024-04-19	2024-04-19
Sample Type:	N	N

Environmental DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents Protection Agency Maximum Contaminant Levels SDG: 240419-2568-046				
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--
Environmental DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents Protection Agency Maximum Contaminant Levels SDG: 240419-2568-046				
BAC (MPN/ml)			SDG: 240419-2568-046	SDG: 240419-2568-046
Heterotrophic Plate Count	None	None	2.00 U	10.0
Environmental DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents Protection Agency Maximum Contaminant Levels				
Field Tests (mg/L)				
Free Chlorine	None	4	0.00 U	0.00 U

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-17416
Call Date/Time	4/9/2024 3:14:53 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	4/22/2024 9:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	1805 Blackthorn Loop
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	2
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	whole family is still expericing skin irritation stomach ache, all the medical symptoms as before, no sheen or smell noted. wish to keep the records going and wants a new test. does not want water

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Skin irritations since the fuel incident
Respiratory	None None reported
Gastrointestinal	Adults Stomach aches since the fuel incident
Headache	Adults Headaches since the fuel incident
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.00
Conductivity (µS/cm)	272.00
FreeChlorine (mg/L or ppm)	0.52
Cold Temp (degrees F)	76.00
Hot water Sampling Location	Kitchen
pH (standard units)	14.00
Conductivity (µS/cm)	0.52
FreeChlorine (mg/L or ppm)	0.52
Hot Temp (degrees F)	108.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water. No unusual taste or odor.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure	
Hot Water Temperature	Too Cold
Cross-Connection	
Irrigation	

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	No

Follow up with EDWM water quality results when available.
 Review water heater maintenance records. Given the age, consider replacing the unit. At a minimum, the appliance needs to be drained and flushed thoroughly.
 Adjust the thermostatic mixing valve at the water heater to ensure hot water temperatures above 115 °F at all outlets.
 No additional actions required

Other Site Visit Notes

While the hot water temperature was adequate in the kitchen, it was below 115 °F at the bathroom outlets.

Faucet aerator screens in kitchen and restrooms were free of any mineral particles.

The 119-gallon electric water heater was made in 2013. It used to be connected to solar roof panels. The pipe material is copper with a thermostatic mixing valve is installed between the cold supply and hot water line.

Call Center - WQI Checklist

Photos

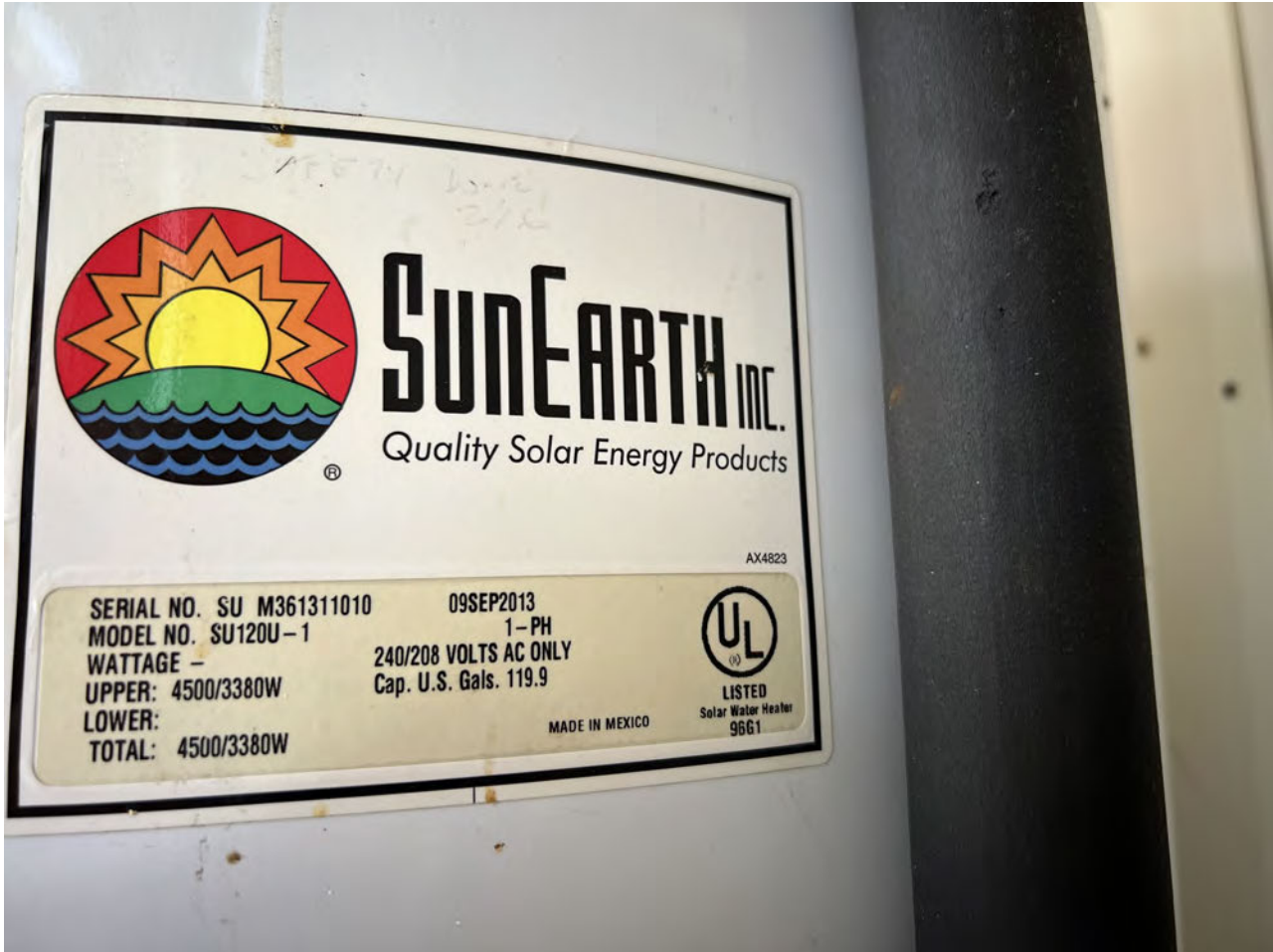
Ticket Number	17416
Location	Other
Title	Kitchen Faucet Aerator Screen



Call Center - WQI Checklist

Photos

Ticket Number	17416
Location	Hot Water Heater
Title	water heater



Call Center - WQI Checklist

Photos

Ticket Number	17416
Location	Other
Title	kitchen sink aerator



Monday, 22 April 2024, 0900

H3 1805 Blackthorn Loop

Location ID = H3-BLAC1805

Sample ID = H3-TW-0013888-24092-A-WQI

A. Resident Concerns:

- Health concerns:
 - Two adults, Two children.
 - Resident has had headaches and skin irritations since the fuel incident.
 - Resident also, notice very high-water pressure in recent months after noticing workers on the street.

B. Water Quality Observations and Results

- Unit was previously sampled on January, 5, 2024.
 - No unusual observations.
 - No organic chemicals were detected.
 - Traces of arsenic, barium, chromium, copper, and lead found.
- WQAT & EDWM crew on site, CPLO was not present.
 - WQAT collected cold water sample from kitchen sink for rapid TPH test.
 - EDWM team collected cold water samples from upstairs bathroom sink.
- Results of field testing from kitchen sink:
 - pH 7.0 (cold), 7.0 (hot)
 - Conductivity 272 $\mu\text{S}/\text{cm}$ (cold water), 274 $\mu\text{S}/\text{cm}$ (hot water)
 - Free Chlorine 0.52 mg/L (cold), 0.52 mg/L (hot)
 - Cold Temp 76 °F
 - Hot Temp 108 °F
- While the hot water temperature was adequate in the kitchen, it was below 115 °F at the bathroom outlets.
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water. No unusual taste or odor.
- Faucet aerator screens in kitchen and restrooms were free of any mineral particles.



C. Hot Water Heater

- The 119-gallon electric water heater was made in 2013. It used to be connected to solar roof panels. The pipe material is copper with a thermostatic mixing valve is installed between the cold supply and hot water line.

D. Point-of-Use Treatment

- None

E. Overall Assessment

- Other than low hot water temperature, water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Review water heater maintenance records. Given the age, consider replacing the unit. At a minimum, the appliance needs to be drained and flushed thoroughly.

- Adjust the thermostatic mixing valve at the water heater to ensure hot water temperatures above 115 °F at all outlets.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	1805 Blackthorn Loop	1805 Blackthorn Loop	1805 Blackthorn Loop
Field Sample ID:	H3-TW-0013888-24092-A-WQI	H3-TW-0013888-24092-A-C-WQI	H3-TW-0013888-24092-A-H-WQI
Sample Date:	2024-04-22	2024-04-22	2024-04-22
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	SDG: 240422-2568-048
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.520-0.600	0.520-0.600	0.520-0.600

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	
Alkalinity, Total (as CaCO3)	None	None	55.0	--	--
Total Organic Carbon	None	None	0.200 U	--	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	
Copper	1300	1300	20.4	--	--
Lead	15	15	0.230 J	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA63860A	SDG: 240422-2568-048	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.680	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.640	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--
Toluene	1000	1000	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	1.32	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-18770
Call Date/Time	4/25/2024 9:20:09 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/1/2024 9:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	137 3rd Street
Command	
Branch	
Property Manager	
Date of move-in	3/1/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	2
Number of infants under the age of 2	0
Number and type of pets	2 dogs
Call Center Complaint Summary / Initial Notes	on island a while and just recently moved down the street to a new home. Has a RO system currently installed and filters on the showers, but despite that the husband mostly but the rest of the family is suffering in milder forms. husbands long standing complaint is severe headaches and since moving homes and after the RO system was installed, he has had relief from the headaches some but is now suffering from intense skin issues and has seen medical. wants a test and is unsure if she wants the water delivery so RRT will bring it and see if they accept it. wants tests and the results from LTM more than anything.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Rashes
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	Adults Headaches
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	Continuously
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	
Conductivity (µS/cm)	255.00
FreeChlorine (mg/L or ppm)	0.20
Cold Temp (degrees F)	74.00
Hot water Sampling Location	Kitchen
pH (standard units)	
Conductivity (µS/cm)	71.00
FreeChlorine (mg/L or ppm)	0.00
Hot Temp (degrees F)	126.00
Water Quality Notes	pH not tested (GAC filter upstream). No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
	NA
Do you have point-of-use filters?	Yes
	Under-the-sink GAC filters installed on cold and hot water supplies in kitchens and bathrooms (Pono Revival Kitchen Essential). Bears NSF logo, but not found in NSF or WQA listings of certified products. Under the sink RO system (Pono Revival Natural Alkaline Hydrogen-Rich Drinking Water System). Shower filters installed (Pono Revival High-Capacity Shower Filter). Residents consume water from water cooler (BRIO Model CLPOU720UVF3) installed downstream of under-the-sink GAC filter.
Kitchen sink	Other
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	Other
Bathroom - second floor	Other
Bathroom - other	Other
	See "Onsite Notes" for full details.
Who installed the water filter	I don't know

Call Center - WQI Checklist

Water Fixtures

Staining or Scale visible buildup on water fixtures

Kitchen sink - Specific inspection point

Kitchen sink - Condition of aerator

Refrigerator - Specific inspection point

Refrigerator - Condition of aerator

Bathroom - first floor - Specific inspection point

Bathroom - first floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - other - Specific inspection point

Bathroom - other - Condition of aerator

Other Concerns

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement	Yes
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
Review water heater maintenance records, if available. Given the age, strongly recommend replacing the unit.
No additional actions required.

Other Site Visit Notes

Faucet aerators in kitchen and upstairs bathrooms each showed one or two small mineral particles with a light-green to dark blue hue, presumed to be copper minerals.

The electric water heater was made in 2003. Resident indicated heater was flushed in the past year. Anode has likely never been replaced.

No hose bib vacuum breakers on outside hose bibs.

Could not identify connection or verify backflow protection between potable water and the home irrigation system.

Call Center - WQI Checklist

Photos

Ticket Number	18770
Location	Other
Title	Kitchen Faucet Aerator



Call Center - WQI Checklist

Photos

Ticket Number	18770
Location	Other
Title	Upstairs Bathroom Faucet Aerator



Call Center - WQI Checklist

Photos

Ticket Number	18770
Location	Other
Title	Upstairs Bathroom Faucet Aerator



CDR – please find below our report from today's visit.

Wednesday, 1 May 2024, 0900

Zone D2, Address 137 3rd Street
(Location Code: D2-3RD0137)

A. Resident Concerns

- Two adults, two children (9 and 11 years old), two dogs
- Resident at location since March 2023. Lived on base nearby (6th Street) for two years before.
- Health concerns:
 - Male resident is experiencing headaches since moving in and, recently, rashes. Resident seems to correlate issues to water use but did not imply causation. Suggested improvement of migraine with use of reverse osmosis (RO) treated water.
 - Nobody else in household experiences health issues.
- Water Quality Concerns:
 - None. Asked for water heater sampling. Declined and explained that hot water sample from upstairs bathroom will be representative.

B. Water Quality Observations and Results

- The unit was previously sampled on 29 March 2022.
 - No unusual observations.
 - No detection of organic chemicals.
 - Traces of barium, chromium, copper, and lead were found.
- WQAT & EDWM crew on site, shadowed one trainee. CPLO was represented by contractor.
 - WQAT collected a water sample from the bathtub faucet for rapid TPH test.
 - EDWM team collected water samples from downstairs bathroom sink after removing GAC filter.
- Results of field testing from kitchen sink:
 - pH Not tested (GAC filter upstream)
 - Conductivity 255 µS/cm (GAC filtered cold water), 71 µS/cm (RO treated)
 - Free Chlorine 0.20 mg/L (at water heater drain), non-detect in filtered water.
 - Cold Temp 74 °F
 - Hot Temp 126 °F (Kitchen sink)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Faucet aerators in kitchen and upstairs bathrooms each showed one or two small mineral particles with a light-green to dark blue hue, presumed to be copper minerals.



C. Water Heater

- The electric water heater was made in 2003. Resident indicated heater was flushed in the past year. Anode has likely never been replaced.

D. Point-of-Use Treatment

- Under-the-sink GAC filters installed on cold and hot water supplies in kitchens and bathrooms ([Pono Revival Kitchen Essential](#)). Product bears NSF logo and vendor claims NSF 42 certification for the removal of taste, odor, and chlorine. Website also claims “maximum reduction” of benzene, haloacetic acids, herbicides, volatile organic chemicals (VOCs), pesticides, and others. Product or vendor was not found in NSF or WQA listings of certified/tested products^[1]. Field tests indicated chlorine removal, but effectiveness for reduction of health-related contaminants is questionable.
- Under-the-sink RO system
 - [Pono Revival Natural Alkaline Hydrogen-Rich Drinking Water System](#)
 - System installed downstream of GAC filters; utilizes pre-carbon filter, RO cartridge, remineralization cartridge, and post-carbon filter.
 - Field test showed that system removes over 70% of dissolved solids and is thus likely effective for removing health-related contaminants.
 - Product or vendor was not found in NSF or WQA listings of certified/tested products.
 - Direct connection of reject water line to sewer drain downstream of trap presents a cross-connection. Advised resident to have installer provide connection with air gap.
- Shower filters installed ([Pono Revival High-Capacity Shower Filter](#)). Website claims that system removes chlorine, chloramine, fluoride, heavy metals, 300+ other contaminants and controls scale, bacteria, and algae. Product is not NSF-certified and effectiveness for removal of health-related contaminants is questionable.
- Residents consume water from water cooler (BRIO Model CLPOU720UVF3) installed downstream of under-the-sink GAC filter. Product is UL-listed and the installed GAC and sediment filters are NSF 42-certified for chlorine, taste/odor, and nominal particulate reduction.

E. Other Observations

- No hose bib vacuum breakers on outside hose bibs

^[1] System may be a re-branded, certified product.

- Could not identify connection or verify backflow protection between potable water and the home irrigation system
- F. Overall Assessment
- No unusual observations. Water quality is good. EDWM results will confirm that fuel-related chemicals are not present.
- G. Recommendations
- Follow up with EDWM water quality results when available.
 - Review water heater maintenance records, if available. Given the age, strongly recommend replacing the unit.
 - No additional actions required.

^[1] System may be a re-branded, certified product.

(b) (6) , Ph.D., P.E.

(b) (4)

(b) (6)

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	137 3rd Street	137 3rd Street	137 3rd Street
Field Sample ID:	D2-TW-0007007-24092-N-WQI	D2-TW-0007007-24092-N-C-WQI	D2-TW-0007007-24092-N-H-WQI
Sample Date:	2024-05-01	2024-05-01	2024-05-01
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	SDG: 240501-2568-049
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.00 U	0.00 U	0.00 U

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	
Alkalinity, Total (as CaCO3)	None	None	45.0	--	--
Total Organic Carbon	None	None	0.200 U	--	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	
Copper	1300	1300	56.7	--	--
Lead	15	15	0.180 J	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	
1-Methylnaphthalene	None	None	0.260 U	--	--
2-Methylnaphthalene	None	None	0.260 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.260 U	--	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64079A	SDG: 240501-2568-049	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.250 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--
Toluene	1000	1000	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-18898
Call Date/Time	5/3/2024 7:48:52 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/6/2024 10:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5223 Iroquois Avenue
Command	
Branch	
Property Manager	
Date of move-in	5/6/2015 12:00:00 AM
Number of adults under 65	3
Number of adults 65 and older	0
Number of school age children under 18	2
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	long term "flu" symptoms in kids: coughing, congestion, low grade Feaver she wants her water heater tested, informed her that since her home hasent been tested in a while we need to do a hot water test and the "new" tests and let (b) (6) see the WH before we just test from the WH she seemd ok with that after talking it out with me but still requested PPV to be there "incase" we could test the WH the same day. i will contact PPV to add them to the appoitment.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	Multiple instances intermittently
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	Chemical / Medicinal
	Resident mentioned rare chemical smell.
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	None None reported
Respiratory	Adults Coughing and congestion
Gastrointestinal	None None reported
Headache	Adults Low grade fever
Dizziness	Adults Low grade fever
Cough	Adults Coughing and congestion
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.38
Conductivity (µS/cm)	260.00
FreeChlorine (mg/L or ppm)	0.65
Cold Temp (degrees F)	79.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.49
Conductivity (µS/cm)	249.00
FreeChlorine (mg/L or ppm)	0.45
Hot Temp (degrees F)	114.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	Yes
	There was a shower filter ("Aquabliss") installed. The product is not NSF-certified.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure
 Hot Water Temperature
 Cross-Connection
 Irrigation

Summary and Recommendations

Water Heater Replacement	Yes
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
 Review water heater maintenance records. While there are no discrete concerns with the appliance affecting aesthetic water quality, given the age, consider replacing the unit.
 No additional actions required.

Other Site Visit Notes

Observed scale buildup on faucets and appurtenances. Kitchen faucet aerator was clean – there were a few small mineral particles visible, which appeared to be sand grains. Aerators in bathrooms could not be easily removed due to scale built-up. Advised resident to have them replaced.

The age of the gas water heater could not be ascertained. A note on the appliance suggested that it was flushed in 2010 and therefore, it is probably more than 15 years old. The pipe material is copper.

There was a shower filter ("Aquabliss") installed. The product is not NSF-certified. Resident states that they notice improvements with hair and skin care after showering with filter.

Call Center - WQI Checklist

Photos

Ticket Number	18898
Location	Other
Title	Scale Build Up on Faucet



Call Center - WQI Checklist**Photos**

Ticket Number	18898
Location	Other
Title	Kitchen Faucet Aerator



Monday 6 May 2024, 1000

Zone A3, 5223 Iroquois Ave
(Location Code: A3-IROQ5223)

A. Resident Concerns

- Three adults, two children. (No pets observed)
- Resident for 9 years.
- Health concerns:
 - Resident reported experiencing low grade fever, coughing and congestion, they specifically requested to have the water heater tested. It has been clarified Navy will only sample the hot water from the sink.
- Water Quality Concern:
 - Resident mentioned rare chemical smell.

B. Water Quality Observations and Results

- Unit was previously sampled on 20 October 2023.
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of barium, copper, lead, and selenium found.
- WQAT & EDWM crew on site, shadowed by two trainees.
 - WQAT collected cold water sample from bathroom sink for rapid TPH test.
 - EDWM team collected cold water samples from kitchen sink.
- Results of field testing from kitchen sink:

pH	7.38 (cold), 7.49 (hot)
Conductivity	260 $\mu\text{S}/\text{cm}$ (cold water), 249 $\mu\text{S}/\text{cm}$ (hot water)
Free Chlorine	0.65 mg/L (cold), 0.45 mg/L (hot)
Cold Temp	79 °F
Hot Temp	114 °F
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
- Observed scale buildup on faucets and appurtenances. Kitchen faucet aerator was clean – there were a few small mineral particles visible, which appeared to be sand grains. Aerators in bathrooms could not be easily removed due to scale built-up. Advised resident to have them replaced.



C. Hot Water Heater

- The age of the gas water heater could not be ascertained. A note on the appliance suggested that it was flushed in 2010 and therefore, it is probably more than 15 years old. The pipe material is copper.

D. Point-of-Use Treatment

- There was a shower filter ("[Aquabliss](#)") installed. The product is not NSF-certified. Resident states that they notice improvements with hair and skin care after showering with filter.

E. Overall Assessment

- No unusual observations. Water quality is good. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Review water heater maintenance records. While there are no discrete concerns with the appliance affecting aesthetic water quality, given the age, consider replacing the unit.
- No additional actions required.

(b) (6)

A large black rectangular redaction box covers the bottom portion of the page, starting below the recommendations and extending to the right margin.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5223 Iroquois Avenue	5223 Iroquois Avenue	5223 Iroquois Avenue
Field Sample ID:	A3-TW-0016711-24092-N-WQI	A3-TW-0016711-24092-N-C-WQI	A3-TW-0016711-24092-N-H-WQI
Sample Date:	2024-05-06	2024-05-06	2024-05-06
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	SDG: 240506-2568-050
Heterotrophic Plate Count	None	None	--	2.00 U	2.00 U

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.490-0.890	0.490-0.890	0.490-0.890

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	
Alkalinity, Total (as CaCO3)	None	None	53.0	--	--
Total Organic Carbon	None	None	0.200 U	--	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	
Copper	1300	1300	11.4	--	--
Lead	15	15	0.130 U	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64187	SDG: 240506-2568-050	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.300 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--
Toluene	1000	1000	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-18882
Call Date/Time	5/1/2024 2:11:30 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/8/2024 11:00:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	5778B Erne Avenue
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	0
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	resident is having GI issues and nose bleeds, specifcly requested to have water heater tested, because she has had tests before and wants to have a record. wants water 3 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?

When did you first notice the issue?

Is this an ongoing issue/concern, or does it only happen at certain times?

Do you see any issues with the appearance or odor the water in your home?

Color or Appearance of Water

Floating Particles

Taste

Odor

Staining

Scaling (visible surface buildup)

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None
Respiratory	None
Gastrointestinal	None
Headache	None
Dizziness	None
Cough	None
Vision	None
Other	None

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?

Are your neighbors experiencing the same issue?

Does it occur with just the cold water, the hot water, or both?

Does it occur only when you first turn on the water or does it occur continuously?

Are you aware of any recent nearby construction or maintenance activities?

Premise Plumbing History

Premise Plumbing History

Water Quality Concerns

Cold water Sampling Location	Kitchen
pH (standard units)	7.50
Conductivity (µS/cm)	236.82
FreeChlorine (mg/L or ppm)	0.65
Cold Temp (degrees F)	79.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.60
Conductivity (µS/cm)	255.43
FreeChlorine (mg/L or ppm)	0.64
Hot Temp (degrees F)	114.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water

Call Center - WQI Checklist**Filtration Systems**

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	Yes
	There was a shower filter (Nortex) installed. Was not able to determine if the product was NSF-certified.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	True
Kitchen sink - Specific inspection point	
Kitchen sink - Condition of aerator	
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	Sink faucet
Bathroom - other - Condition of aerator	Looks new / clean

Other Concerns

Water Pressure	
Hot Water Temperature	Good
Cross-Connection	
Irrigation	

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	No

Other Site Visit Notes	Observed scale buildup on faucets. Kitchen faucet aerator could not be removed. Master bedroom aerator was clean with scale deposits on the exterior of the faucet. A 40-gallon gas water heater was on premise. The water heater date of manufacture and install could not be ascertained. The pipe material is copper
------------------------	---

No Photos Found

Call Center - WQI Checklist

Wednesday 8 May 2024, 11:00

Zone A3, 5778B Erne Avenue
(Location Code: A3-ERNE5778B)

A. Resident Concerns

- (2) adults, (1) -year-old child, (2) rabbits and (1) cat
- Resident for 7 years.
- Health concerns:
 - In 2018, resident reported experiencing body rashes after showering and has been treated by her physician.
 - Resident uses the drinking water for cooking and showering only.
- Water Quality Concern:
 - Resident mentioned that the neighborhood sewer continues to back up, which causes their toilet to overflow. The resident is concerned that the sewage could be getting into their drinking water.

B. Water Quality Observations and Results

- Unit was previously sampled on 14 August 2023.
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of Total Petroleum Hydrocarbons (TPH), Trihalomethanes (THM), barium, copper, lead, and selenium found.
- Personnel on site:
 - Water Quality Action Team (WQAT) - Collected cold water sample from bathroom sinks, shower, and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) - Lila Castellano
 - Water Quality Investigation Water Monitoring (WQIWM) - Collected hot/cold water samples from kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – N/a
- Results of field testing from kitchen sink:
 - pH -
 - 7.5 (cold)
 - 7.6 (hot)
 - Conductivity –
 - 236.821 $\mu\text{S}/\text{cm}$ (cold)
 - 255.429 $\mu\text{S}/\text{cm}$ (hot)
 - Free Chlorine -
 - 0.65 mg/L (cold)
 - 0.64 mg/L (hot)
 - Temperature -
 - 79 °F (cold)
 - 114 °F (hot)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

- Observed scale buildup on faucets. Kitchen faucet aerator could not be removed. Master bedroom aerator was clean with scale deposits on the exterior of the faucet.



- Photograph 1: Interior of master bathroom sink aerator.



- Photograph 2: Exterior of master bathroom sink aerator.



- Photograph 3: Exterior view of master bathroom shower fixture. Note the pellets that are likely used to aerate and regulate flow. See Section D for additional details.

C. Hot Water Heater

- A 40-gallon gas water heater was on premise. The water heater date of manufacture and install could not be ascertained. The pipe material is copper.

D. Point-of-Use Treatment

- There was a shower filter (Nortex) installed. Was not able to determine if the product was NSF-certified.

E. Overall Assessment

- No unusual observations. Water quality field parameters were within recommended limits at the time of inspection. WQIWM analytical results will determine if drinking water is in compliance with applicable standards.

F. Recommendations

- Follow up with WQIWM water quality results when available.
- A review of the water heater maintenance records should be conducted to determine the age and date of last flushing. Consider water heater replacement if water heater age is determined to be older than the recommended service life of 10 years.
- Due to resident concern about sewers backing up into their drinking water, recommend conducting a cross-connection survey to determine possible pathways for wastewater to enter drinking water system.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5778B Erne Avenue	5778B Erne Avenue	5778B Erne Avenue
Field Sample ID:	A3-TW-0017016-24092-N-WQI	A3-TW-0017016-24092-N-C-WQI	A3-TW-0017016-24092-N-H-WQI
Sample Date:	2024-05-08	2024-05-08	2024-05-08
Sample Type:	N	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	
Coliform	None	None	--	0.00 U	--
E. coli	None	None	--	0.00 U	--
BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	SDG: 240508-2568-052
Heterotrophic Plate Count	None	None	--	15.0	2.00 U
Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels			
Free Chlorine	None	4	0.640-0.650	0.640-0.650	0.640-0.650
GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	
Alkalinity, Total (as CaCO ₃)	None	None	52.3	--	--
Total Organic Carbon	None	None	0.200 U	--	--
HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--	--
Petroleum Hydrocarbons, Total	None	None	ND	--	--
Environmental					
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	
Copper	1300	1300	15.4	--	--
Lead	15	15	0.160 J	--	--
Mercury	2	2	0.0250 U	--	--
Environmental					
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	
1-Methylnaphthalene	None	None	0.250 U	--	--
2-Methylnaphthalene	None	None	0.250 U	--	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--	--
Naphthalene	None	None	0.250 U	--	--
Environmental					
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64253	SDG: 240508-2568-052	
1,2,4-Trimethylbenzene	None	None	0.260 U	--	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--	--
Benzene	5	5	0.250 U	--	--
Bromodichloromethane	None	None	0.250 U	--	--
Bromoform	None	None	0.300 U	--	--
Chloroform	None	None	0.250 U	--	--
Dibromochloromethane	None	None	0.250 U	--	--
Ethylbenzene	700	700	0.250 U	--	--
m,p-Xylene	None	None	0.250 U	--	--
o-Xylene	None	None	0.250 U	--	--
Toluene	1000	1000	0.250 U	--	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	ND	--	--
Xylenes, Total	10000	10000	ND	--	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	3-18979
Call Date/Time	5/7/2024 1:59:39 PM
Call Center Operator	(b) (6)
Location Type	Non-Residence
Scheduled Visit (Date/Time)	5/8/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	
Address	Building X29,PW MAINTENANCE SHOPS
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	0
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	0800: Connect with Navy/WQI Team prior to sampling. Call POC on arrival (808) 347-2730. DO NOT TAKE HOT WATER SAMPLE. Over 100 persons employed in building. With personnel in the field, the building may be occupied by only 20+ people during the daytime.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	Metallic
	Contact person, who has worked onsite for ten years, reported "funny" or metallic taste in breakroom kitchen water dispenser and sink faucet. Stated tingling sensation on tip of tongue, which started Monday morning, and that water has "changed."
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	None
Are your neighbors experiencing the same issue?	
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.34
Conductivity (µS/cm)	250.00
FreeChlorine (mg/L or ppm)	0.08
Cold Temp (degrees F)	78.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.44
Conductivity (µS/cm)	261.00
FreeChlorine (mg/L or ppm)	0.00
Hot Temp (degrees F)	111.00
Water Quality Notes	Unit was previously sampled on 22 May 2022 No unusual observations. No sheen, particles, discoloration, or cloudiness observed in hot or cold water or from water dispenser. No unusual taste or odor detected in dispensed water or ice. No detections of organic chemicals, except a trace of bromoform, a disinfection byproduct. Traces of barium, chromium, copper, and lead found.

Filtration Systems

Do you have a whole home water filtration system?

Do you have point-of-use filters?

There is a filter installed upstream of the water/ice dispenser (Hoshizaki Ice Maker, Model DCM-270BAH). The water/ice dispenser is 4 to 6 years old. It is not certain that the appliance has been appropriately maintained. The manufacturer's instructions require periodic maintenance, including frequent cleaning and sanitizing of the appliance.

Kitchen sink

Refrigerator

Bathroom - first floor

Bathroom - second floor

Bathroom - second floor

Bathroom - other

Who installed the water filter

Call Center - WQI Checklist

Water Fixtures

Staining or Scale visible buildup on water fixtures

Kitchen sink - Specific inspection point

Kitchen sink - Condition of aerator

Refrigerator - Specific inspection point

Refrigerator - Condition of aerator

Bathroom - first floor - Specific inspection point

Bathroom - first floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - other - Specific inspection point

Bathroom - other - Condition of aerator

Other Concerns

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

-Follow up with EDWM water quality results when available.

-Advise PWD that filter should be moved to an air-conditioned space inside the building and that periodic maintenance must be performed on the water/ice dispenser.

-Advised staff to flush faucet and water dispenser Monday mornings.

Other Site Visit Notes

Observed scale buildup on water/ice dispenser and around kitchen sink. The faucet aerator equipped with orifice flow restrictor did not show any buildup of debris. The filter (Pentair Everpure i20002, EV9612-22) is installed on the outside wall of the building, exposed to the elements. The filter has last been replaced in May of 2023.

Call Center - WQI Checklist**Photos**

Ticket Number	18979
Location	Other
Title	Water/Ice Dispenser



Call Center - WQI Checklist

Photos

Ticket Number

18979

Location

Other

Title

Pentair Everpure i20002, EV9612-22 Filter



Wednesday 8 May 2024, 0800

Zone F1, Address Building X29 (Public Works Maintenance Shops)
(Location Code: F1-BLDG0X29)

A. Resident Concerns

- Over 100 persons employed in building. With personnel in the field, the building may be occupied by only 20+ people during the daytime.
- Health concerns:
 - No specific health concerns.
- Water Quality Concern:
 - Contact person, who has worked onsite for ten years, reported “funny” or metallic taste in breakroom kitchen water dispenser and sink faucet. Stated tingling sensation on tip of tongue, which started Monday morning, and that water has “changed.”

B. Water Quality Observations and Results

- Unit was previously sampled on 22 May 2022
 - No unusual observations.
 - No detections of organic chemicals, except a trace of bromoform, a disinfection byproduct.
 - Traces of barium, chromium, copper, and lead found.
- WQAT & EDWM crew on site, shadowed by one trainee.
 - WQAT collected cold water sample from bathroom sink for rapid TPH test.
 - EDWM team collected cold water sample from kitchen sink.
- Results of field testing from kitchen sink:

pH	7.34 (cold), 7.44 (hot)
Conductivity	250 µS/cm (cold water), 261 µS/cm (hot water)
Free Chlorine	0.08 mg/L (cold), not detected (hot)
Cold Temp	78 °F
Hot Temp	111 °F
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water or from water dispenser. No unusual taste or odor detected in dispensed water or ice.
- Observed scale buildup on water/ice dispenser and around kitchen sink.
- The faucet aerator equipped with orifice flow restrictor did not show any buildup of debris.

C. Water Heater

- The electric water heater was not located or examined.

D. Point-of-Use Treatment

- No filters installed on outlets.
- There is a filter installed upstream of the water/ice dispenser ([Hoshizaki Ice Maker, Model DCM-270BAH](#)). The water/ice dispenser is 4 to 6 years old. It is not certain that the appliance has been appropriately maintained. The

manufacturer's instructions require periodic maintenance, including frequent cleaning and sanitizing of the appliance.



- The filter ([Pentair Everpure i2000², EV9612-22](#)) is installed on the outside wall of the building, exposed to the elements. The filter has last been replaced in May of 2023.

E. Overall Assessment

- Breakroom is located on the side of the large building opposite of the service connection. Extended stagnation in the premise plumbing will result in loss of chlorine residual and potential of biofilm growth, which could impact aesthetic water quality.
- Water quality is good, except disinfectant residuals are low. EDWM results will confirm petroleum not present.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Advise PWD that filter should be moved to an air-conditioned space inside the building and that periodic maintenance must be performed on the water/ice dispenser.
- Advised staff to flush faucet and water dispenser Monday mornings.
- No additional actions required.

Summary of Chemistry Results
Zone F1
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	F1-BLDG0X29			
				Location Type:	Non-Residence			
				Address:	Building X29,PW MAINTENANCE SHOPS			
				Field Sample ID:	F1-TW-0015326-24092-N-WQI	F1-TW-0015326-24092-N-C-WQI	F1-TW-0015326-24092-N-C-WQI-R1	F1-TW-0015326-24092-N-WQI-R2
				Sample Date:	2024-05-08	2024-05-08	2024-05-17	2024-06-25
				Sample Type:	N (Normal)	N (Normal)	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level					
Bacterial Test (in 100 mL)	Coliform	--	--	--	Absent	Absent	Absent	Absent
	E. coli	--	--	--	Absent	Absent	Absent	Absent
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	--	ND	6.00	ND	
Field Test (ppb)	Free Chlorine	4000	MCL	550	550	170	310	
Field Test (pH)	pH	--	--	7.18	--	7.25	7.11	
Field Test (ms/cm)	Specific Conductivity	--	--	0.250	--	0.240	0.250	
Field Test (degrees Celcuis)	Temperature	--	--	24.4	--	27.5	28.5	
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.340	--	0.850	0.760	
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	51200	--	--	--	
	Total Organic Carbon	--	--	ND	--	--	--	
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--	--	--	
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--	--	--	
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--	--	--	
	Petroleum Hydrocarbons, Total	--	--	ND	--	--	--	
Metals (ppb)	Copper	1300	MCL	44.0	--	--	--	
	Lead	15	MCL	0.160	--	--	--	
	Mercury	2	MCL	ND	--	--	--	
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--	--	--	
	2-Methylnaphthalene	--	--	ND	--	--	--	
	Benzo(a)pyrene	0.2	MCL	ND	--	--	--	
	Naphthalene	--	--	ND	--	--	--	

Summary of Chemistry Results
Zone F1
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	F1-BLDG0X29			
				Location Type:	Non-Residence			
				Address:	Building X29,PW MAINTENANCE SHOPS			
				Field Sample ID:	F1-TW-0015326-24092-N-WQI	F1-TW-0015326-24092-N-C-WQI	F1-TW-0015326-24092-N-C-WQI-R1	F1-TW-0015326-24092-N-WQI-R2
				Sample Date:	2024-05-08	2024-05-08	2024-05-17	2024-06-25
				Sample Type:	N (Normal)	N (Normal)	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level					
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--	--	--	--
	1,3,5-Trimethylbenzene	--	--	ND	--	--	--	--
	Benzene	5	MCL	ND	--	--	--	--
	Ethylbenzene	700	MCL	ND	--	--	--	--
	m,p-Xylene	--	--	ND	--	--	--	--
	o-Xylene	--	--	ND	--	--	--	--
	Toluene	1000	MCL	ND	--	--	--	--
	Xylenes, Total	10000	MCL	ND	--	--	--	--
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	--	--	--
	Bromoform	--	--	0.470	--	--	--	--
	Chloroform	--	--	ND	--	--	--	--
	Dibromochloromethane	--	--	ND	--	--	--	--
	Total Trihalomethanes	80	MCL	0.470	--	--	--	--

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-18957
Call Date/Time	5/7/2024 7:42:41 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/13/2024 10:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5644A Dovekie Avenue
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	3
Number of infants under the age of 2	0
Number and type of pets	2 birds and 2 cats
Call Center Complaint Summary / Initial Notes	24 hour urine test for heavy metals was positive, has been seen by a doctor for severe stomach issues. complained that her home had had sewage back up 18 times in the last year but cant afford to move and is worried there's Bactria growing. wants hot and cold water tested, also requested hot water heater tested, its a 2009 model and believes its never been flushed, she understood our SOP of examining it to see if the WH warranted testing. Wants water 5 in the home.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	None
	None reported
Respiratory	None
	None reported
Gastrointestinal	Adults
	Resident stated she has gut issues, which she was tested and found to have elevated lead levels. Note: that she shared that she was tested at a younger age to have elevated lead levels.
Headache	None
	None reported
Dizziness	None
	None reported
Cough	None
	None reported
Vision	None
	None reported
Other	None
	None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None
--------------------------	------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.30
Conductivity (µS/cm)	232.00
FreeChlorine (mg/L or ppm)	0.54
Cold Temp (degrees F)	80.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.30
Conductivity (µS/cm)	255.00
FreeChlorine (mg/L or ppm)	0.60
Hot Temp (degrees F)	111.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
	No water filters within the household.
Do you have point-of-use filters?	No
	No water filters within the household.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	True
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement Yes

Fixture Replacement No

Navy to follow-up Yes

Other No

Follow up with WQIWM water quality results when available.

A review of the water heater maintenance records should be conducted to determine the age and date of last flushing. Consider water heater replacement due to recommended service life of 10 years. No additional actions required.

Other Site Visit Notes

Bathroom faucet aerator was clear of any debris.

40-gallon gas water heater was on premise. The water heater manufactured date was May of 2010.

On visual observation of the water heater, there were no exterior corrosion and no maintenance records found. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	18957
Location	[No Coverage]
Title	Interior of bathroom faucet aerator, with a small black particle and orange colored rust on the perimeter of the aerator surface.



Call Center - WQI Checklist

Photos

Ticket Number	18957
Location	[No Coverage]
Title	Exterior of Kitchen faucet aerator, with a few small particles and scaling.



Call Center - WQI Checklist

Photos

Ticket Number	18957
Location	Other
Title	kitchen sink



Call Center - WQI Checklist

Photos

Ticket Number

18957

Location

First Floor - Bathroom - Sink

Title

aerator



Monday, 13 May 2024, 10:00

Zone - A3-5644A Dovekie Avenue

Location Code: A3-DOVE5644A

A. Resident Concerns

- (2) adults, (3) children, (2) birds and (2) cats
- Resident for 4 years.
- Health Concerns
 - Resident stated she has gut issues, which she was tested and found to have elevated lead levels.
 - Note: that she shared that she was tested at a younger age to have elevated lead levels.

B. Water Quality Observations and Results

- Unit was previously sampled on September 11, 2023.
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of bis(2-ethylhexyl)phthalate, chromium, barium, copper, lead, and selenium found.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water sample from bathroom sinks, and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) - (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) - Collected hot/cold water samples from kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – N/a
- Results of field testing from kitchen sink
 - pH -
 - 7.3 (cold)
 - 7.3 (hot)
 - Conductivity -
 - 232 µS/cm (cold)
 - 255 µS/cm (hot)
 - Free Chlorine -
 - 0.54 mg/L (cold)
 - 0.60 mg/L (hot)
- Temperature -
 - 80 °F (cold)
 - 111 °F (hot)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.



• Photograph 1: Interior of bathroom faucet aerator, with a small black particle and orange colored rust on the perimeter of the aerator surface



Photograph 2: Exterior of Kitchen faucet aerator, with a few small particles and scaling.

C. Hot Water Heater

- 40-gallon gas water heater was on premise. The water heater manufactured date was May of 2010. On visual observation of the water heater, there were no exterior corrosion and no maintenance records found. The pipe material is copper.
- D. Point-of-Use Treatment
- No water filters within the household. Bathroom faucet aerator was clear of any debris.
- E. Overall Assessment
- No unusual observations.
 - Water quality field parameters were within recommended limits at the time of inspection.
 - WQIWM analytical results will determine if drinking water is in compliance with applicable standards.
- F. Recommendations
- Follow up with WQIWM water quality results when available.
 - A review of the water heater maintenance records should be conducted to determine the age and date of last flushing. Consider water heater replacement due to recommended service life of 10 years.
 - No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5644A Dovekie Avenue	5644A Dovekie Avenue
Field Sample ID:	A3-TW-0016297-24092-N-WQI-R1	A3-TW-0016297-24092-N-H-WQI-R1
Sample Date:	2024-05-14	2024-05-14
Sample Type:	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240514-2568-086B	SDG: 240514-2568-086B
Coliform	None	None	0.00 U	0.00 U
E. coli	None	None	0.00 U	0.00 U

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240514-2568-086B	SDG: 240514-2568-086B
Heterotrophic Plate Count	None	None	74.0	8.00

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Free Chlorine	None	4	0.640-0.700	0.640-0.700

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

CATEGORY	 Plumbing	PLACE	 Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	(b) (6) contractor	OPENED	January 2, 2024, 10:52 AM (HST)
REPORTER	(b) (6) resident	CLOSED	January 3, 2024, 12:08 PM (HST)
RESIDENTS	-	ENTRY	 Contact resident first
TAGS	-		

DESCRIPTION

1st appointment-toilets are backing up again. this happened couple days ago.

DOCUMENTATION

 Note

closing out wo due to on the contractors tracker, confirmed with resident appointment

COMMENTS

(b) (6)	The subcontractor and I snake the sewer line outside of the house and I found out many pipe areas pipe crack caused of under roots growing up everything every time. I refer already to the subcontractor	Jan 2, 2024 2:40 PM (HST)
	Called and confirmed with (b) (6) to move forward with repair	Jan 3, 2024 12:06 PM (HST)

CATEGORY	Plumbing	PLACE	Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	Maintenance	STATUS	Closed
ASSIGNED	(b) (6) Maintenance make ready	OPENED	December 22, 2023, 5:36 PM (HST)
REPORTER	(b) (6) resident	CLOSED	December 22, 2023, 10:08 PM (HST)
RESIDENTS	-	ENTRY	Enter any time
TAGS			

DESCRIPTION

Kitchen My toilets started flooding yesterday when I started my washer. (b) (6) Came and fixed it but today my kitchen sinks are backing up and not draining without plunging every time. Imported from Yardi WO# 7733582

DOCUMENTATION



Note

Completed

COMMENTS

(b) (6)

Entry Instructions: Permission to enter

Dec 22, 2023
5:39 PM (HST)

Kitchen sink drain both compartment clogged , Disconnected sink drain pipe assembly under sink for hand snake through drain to clear it successfully, Replace drain assembly pipes back in place , clean up working area ... task completed,

Dec 22, 2023
10:08 PM (HST)

CATEGORY	 Plumbing	PLACE	 Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	(b) (6) Technician	OPENED	June 23, 2023, 11:47 AM (HST)
REPORTER	(b) (6) resident	CLOSED	June 23, 2023, 3:19 PM (HST)
RESIDENTS	-	ENTRY	 Contact resident first
TAGS	-		

DESCRIPTION

both bathrooms are flooding the house-we have PTE

DOCUMENTATION

 Note

Ok

COMMENTS

(b) (6)

sent urgent teams message to dispatch 6/23/2023 BH

Jun 23, 2023
12:55 PM (HST)

Repair and declogged the both toilets overflowing and showers stall are clogged I used manual snake and k60 at the rooftop

Jun 23, 2023
3:19 PM (HST)

CATEGORY	 Plumbing	PLACE	 Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	(b) (6) Technician	OPENED	May 30, 2023, 2:19 PM (HST)
REPORTER	(b) (6) resident	CLOSED	May 31, 2023, 12:40 AM (HST)
RESIDENTS	-	ENTRY	 Enter any time
TAGS	-		

DESCRIPTION

Guest Bathroom Plumbing is backing up causing constant sewage flooding into the house. The constant smell is nauseating and unhealthy and poses safety issues. Imported from Yardi WO# 7075268

DOCUMENTATION

Note

Ok

COMMENTS**(b) (6)**

Both toilets are overflowing and showers stall are clogged drain pipe I used auger and k60 at the rooftop

May 31, 2023
12:40 AM (HST)

CATEGORY	 Plumbing	PLACE	 Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	(b) (6) Maintenance make ready	OPENED	October 12, 2022, 11:36 AM (HST)
REPORTER	(b) (6) resident	CLOSED	October 13, 2022, 3:31 PM (HST)
RESIDENTS	-	ENTRY	 Enter any time
TAGS	-		

DESCRIPTION

Guest Bathroom Hallway bathroom sink will not drain properly and the master bathroom pipes are making noises again in the wall when the shower is running at times still. Imported from Yardl WO# 6410763

DOCUMENTATION

 Note

Completed 

COMMENTS

(b) (6)

Entry Instructions: permission to enter

Oct 12, 2022
11:39 AM (HST)

Guest bathroom sink draining slow , pull out stopper for cleaning hair trapped on it , And repair sink drain broken pivot rod to adjust stopper in to closed and open . Task Completed 

Oct 13, 2022
3:31 PM (HST)

CATEGORY	 Plumbing	PLACE	 Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	(b) (6) Maintenance make ready	OPENED	October 12, 2022, 11:36 AM (HST)
REPORTER	(b) (6) resident	CLOSED	October 13, 2022, 3:31 PM (HST)
RESIDENTS		ENTRY	 Enter any time
TAGS			

DESCRIPTION

Guest Bathroom Hallway bathroom sink will not drain properly and the master bathroom pipes are making noises again in the wall when the shower is running at times still. Imported from Yardi WO#: 6410763

DOCUMENTATION



Note

Completed 

COMMENTS

(b) (6) Entry/Instructions: permission to enter

Oct 12, 2022
11:39 AM (HST)(b) (6) Guest bathroom sink draining slow, pull out stopper for cleaning hair trapped on it, And repair sink drain broken pivot rod to adjust stopper in to closed and open. Task Completed Oct 13, 2022
3:31 PM (HST)

CATEGORY	 Plumbing	PLACE	 Unit 5644A / Building 5644 / Phase Beach
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	(b) (6) Service Technician	OPENED	July 27, 2022, 7:14 PM (HST)
REPORTER	(b) (6) resident	CLOSED	July 28, 2022, 12:41 AM (HST)
RESIDENTS	-	ENTRY	 Enter any time
TAGS	-		

DESCRIPTION

Primary Bathroom Both bathrooms are backed up in the shower and tub with sewer water and about to flood over in the master shower. toilets are not flushing and master is about to overflow. no functioning toilet or shower/bath at the present moment. please send plumber asap Imported from Yardl WO# 6166287

DOCUMENTATION

Note

Ok

COMMENTS

(b) (6) Entry Instructions: permission granted to enter premises

Jul 27, 2022
7:16 PM (HST)

(b) (6) Repair and unclogged the both toilets overflowing and both showers stall are stuck I used manual snake to unclogged. K60 at the rooftop

Jul 28, 2022
12:41 AM (HST)

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19047
Call Date/Time	5/9/2024 4:18:13 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/13/2024 11:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5651 Dovekie Avenue
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	2 dogs
Call Center Complaint Summary / Initial Notes	neighbor suggested they get their WH tested. there is no concern not Health or water issues, they just haven't been tested for in a year ish. says the water heater is 6 months or so old, that they got it replaced. want water 2+2 dogs in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	Cloudy / Foamy / Milky
	Resident shared that in November of 2022, they observed their drinking water to be cloudy.
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	None
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None
--------------------------	------

Water Quality Concerns

Cold water Sampling Location	Kitchen
pH (standard units)	7.30
Conductivity (µS/cm)	233.00
FreeChlorine (mg/L or ppm)	0.72
Cold Temp (degrees F)	82.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.80
Conductivity (µS/cm)	275.00
FreeChlorine (mg/L or ppm)	0.34
Hot Temp (degrees F)	117.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Call Center - WQI Checklist

Filtration Systems

Do you have a whole home water filtration system?	No
	No water filters within the household.
Do you have point-of-use filters?	No
	No water filters within the household.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Other Concerns

Water Pressure
Hot Water Temperature
Cross-Connection
Irrigation

Call Center - WQI Checklist**Summary and Recommendations**

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up Yes

Other No

Follow up with WQIWM water quality results when available. No additional actions required.

Other Site Visit Notes Resident shared that in November of 2022, they observed their drinking water to be cloudy.

Resident wanted to get a current water sample for their home.

40-gallon gas water heater was on premise. The water heater manufacture date was September 8, 2023 and was replaced 6-months ago. There were no water heater maintenance records found on the water heater. The pipe material is copper.

The bathroom faucet and kitchen sink aerator were clear of debris.

Call Center - WQI Checklist

Photos

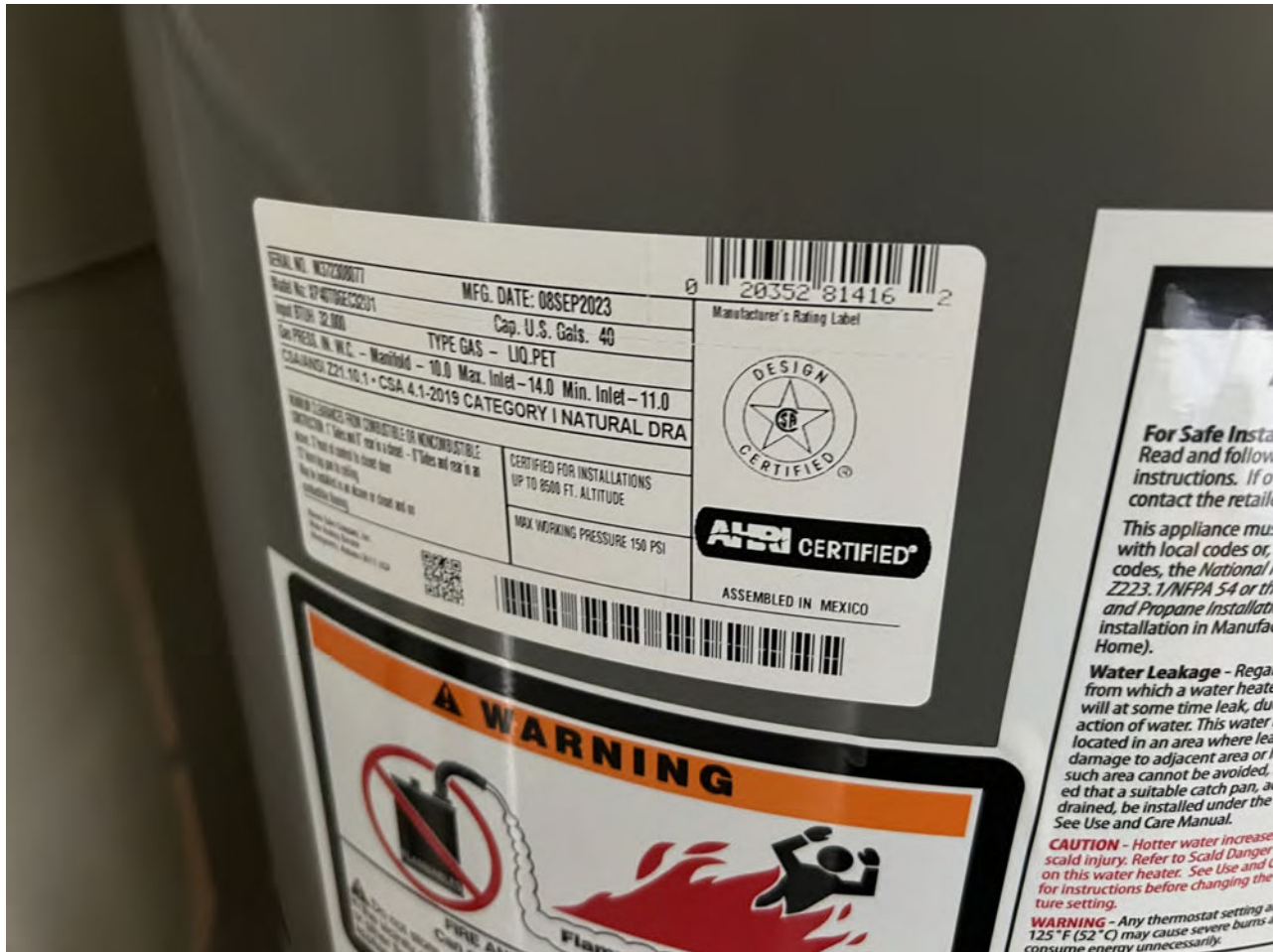
Ticket Number	19047
Location	[No Coverage]
Title	Exterior of Kitchen faucet aerator. Note that there are small white particles on the exterior of the aerator.



Call Center - WQI Checklist

Photos

Ticket Number 19047
 Location [No Coverage]
 Title Water heater label, manufactured by Rheem on September 8, 2023.



Call Center - WQI Checklist

Photos

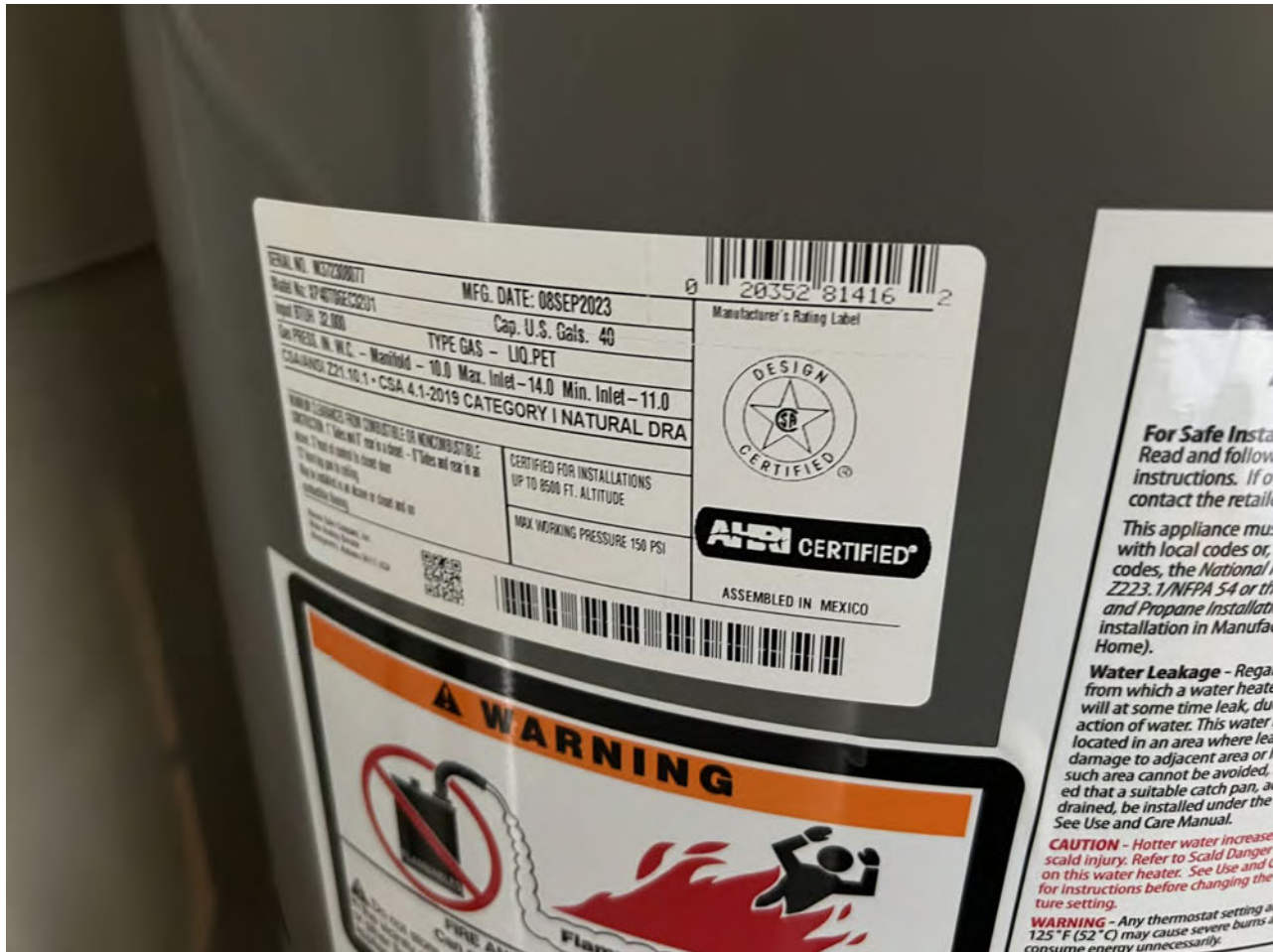
Ticket Number	19047
Location	Other
Title	kitchen aerator



Call Center - WQI Checklist

Photos

Ticket Number 19047
 Location Other
 Title water heater



Monday, 13 May 2024, 11:00

Zone - A3-5651 Dovekie Avenue

Location Code: A3-DOVE5651

A. Resident Concerns

- (2) adults, and (2) dogs.
- Resident for 3 years.
- Health Concerns
 - No concerns.
 - Resident shared that in November of 2022, they observed their drinking water to be cloudy.
 - Resident wanted to get a current water sample for their home.

B. Water Quality Observations and Results

- Unit was previously sampled on August 14, 2023.
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of Total Petroleum Hydrocarbons (TPH), Trihalomethanes (THM), barium, copper, lead, and selenium found.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water sample from bathroom sink, and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) - (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) - Collected hot/cold water samples from kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – N/a
- Results of field testing from kitchen sink
 - pH -
 - 7.3 (cold)
 - 7.8 (hot)
 - Conductivity -
 - 233 µS/cm (cold)
 - 275 µS/cm (hot)
 - Free Chlorine -
 - 0.72 mg/L (cold)
 - 0.34 mg/L (hot)
- Temperature -
 - 82 °F (cold)
 - 117 °F (hot)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.



Photograph 1: Exterior of Kitchen faucet aerator. Note that there are small white particles on the exterior of the aerator.



Photograph 2: Water heater label, manufactured by Rheem on September 8, 2023.

- C. Hot Water Heater
 - 40-gallon gas water heater was on premise. The water heater manufacture date was September 8, 2023 and was replaced 6-months ago. There were no water heater maintenance records found on the water heater. The pipe material is copper.
- D. Point-of-Use Treatment
 - No water filters within the household. The bathroom faucet and kitchen sink aerator were clear of debris.
- E. Overall Assessment
 - No unusual observations.
 - Water quality field parameters were within recommended limits at the time of inspection.
 - WQIWM analytical results will determine if drinking water results are in compliance applicable standards.

F. Recommendations

- Follow up with WQIWM water quality results when available.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5651 Dovekie Avenue	5651 Dovekie Avenue
Field Sample ID:	A3-TW-0016302-24092-N-WQI	A3-TW-0016302-24092-N-H-WQI
Sample Date:	2024-05-13	2024-05-13
Sample Type:	N	N

Environmental				
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: 240513-2568-076A	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--
Environmental				
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: 240513-2568-076A	SDG: 240513-2568-076A
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00	2.00 U
Environmental				
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.340-0.720	0.340-0.720
Environmental				
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64335	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	51.3	--
Total Organic Carbon	None	None	0.200 U	--
Environmental				
	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64335	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--
Environmental				
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents				
METAL (µg/L)		Maximum Contaminant Levels	SDG: DA64335	
Copper	1300	1300	18.2	--
Lead	15	15	0.150 J	--
Mercury	2	2	0.0250 U	--
Environmental				
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents				
SVOC (µg/L)		Maximum Contaminant Levels	SDG: DA64335	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--
Environmental				
DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents				
VOC (µg/L)		Maximum Contaminant Levels	SDG: DA64335	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.250 U	--
o-Xylene	None	None	0.250 U	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3

result in parentheses for comparison

mg/L = Milligrams per Liter

MPN/ml = Most Probable Number per Milliliter

CFU/100ml = Colony Forming Units per 100 Milliliters

µg/L = Micrograms per Liter

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-18915
Call Date/Time	5/3/2024 11:40:04 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/13/2024 8:00:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	1809 19th Way
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	0
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	no test done on home wants one, there is a process of elimination happening with water and other things since the family experienced a late term miscarriage.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?

When did you first notice the issue?

Is this an ongoing issue/concern, or does it only happen at certain times?

Do you see any issues with the appearance or odor the water in your home?

Color or Appearance of Water

Floating Particles

Taste

Odor

Staining

Scaling (visible surface buildup)

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?

Skin

Respiratory

Gastrointestinal

Headache

Dizziness

Cough

Vision

Other

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?

Are your neighbors experiencing the same issue?

Does it occur with just the cold water, the hot water, or both?

Does it occur only when you first turn on the water or does it occur continuously?

Are you aware of any recent nearby construction or maintenance activities?

Premise Plumbing History

Premise Plumbing History

Water Quality Concerns

Cold water Sampling Location

pH (standard units)

Conductivity ($\mu\text{S}/\text{cm}$)

FreeChlorine (mg/L or ppm)

Cold Temp (degrees F)

Hot water Sampling Location

pH (standard units)

Conductivity ($\mu\text{S}/\text{cm}$)

FreeChlorine (mg/L or ppm)

Hot Temp (degrees F)

Water Quality Notes

Call Center - WQI Checklist

Filtration Systems

Do you have a whole home water filtration system?

Do you have point-of-use filters?

Kitchen sink

Refrigerator

Bathroom - first floor

Bathroom - second floor

Bathroom - second floor

Bathroom - other

Who installed the water filter

Water Fixtures

Staining or Scale visible buildup on water fixtures

Kitchen sink - Specific inspection point

Kitchen sink - Condition of aerator

Refrigerator - Specific inspection point

Refrigerator - Condition of aerator

Bathroom - first floor - Specific inspection point

Bathroom - first floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - other - Specific inspection point

Bathroom - other - Condition of aerator

Other Concerns

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement	No
--------------------------	----

Fixture Replacement	No
---------------------	----

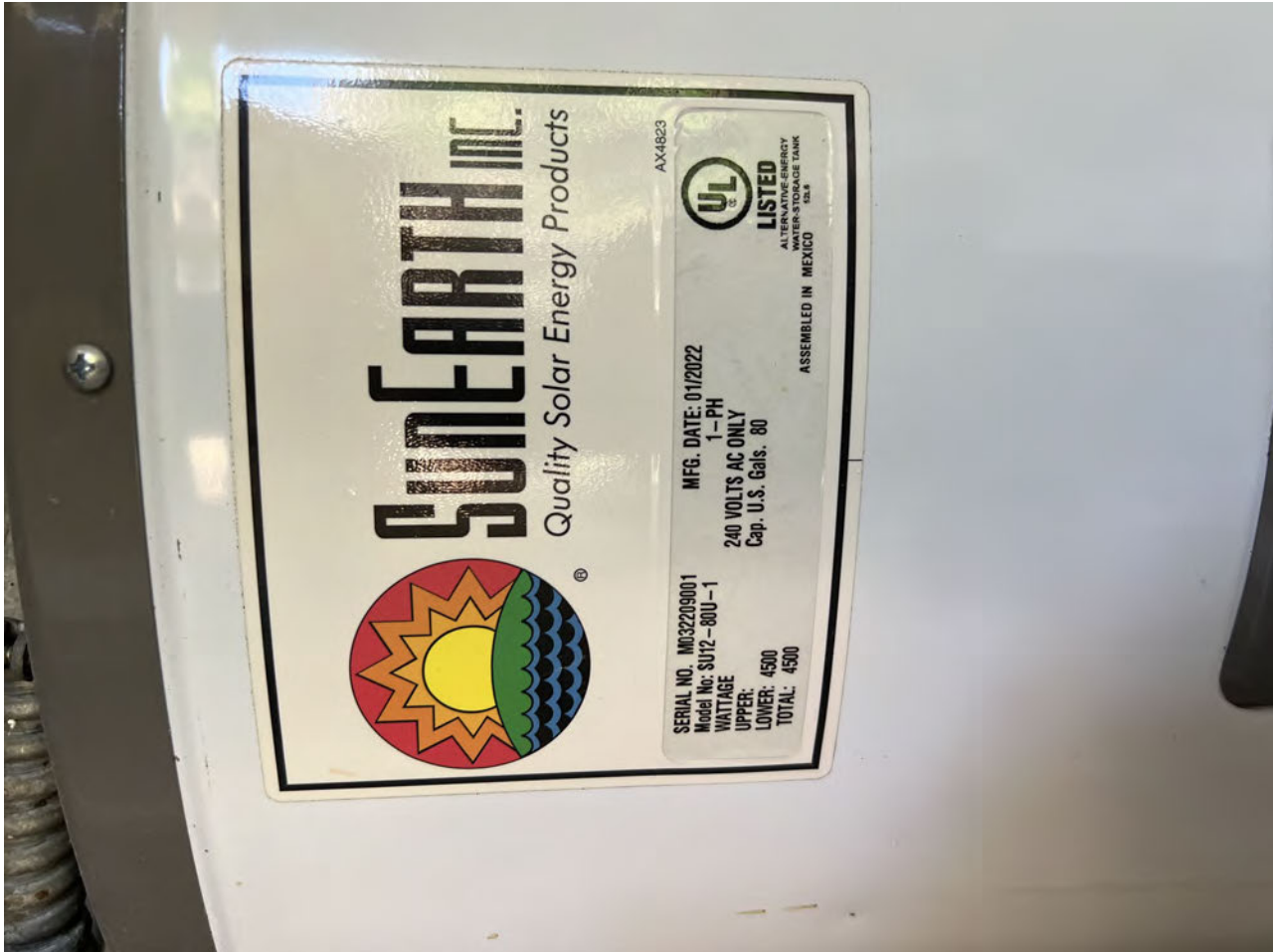
Navy to follow-up	No
-------------------	----

Other	No
-------	----

Other Site Visit Notes

Call Center - WQI Checklist**Photos**

Ticket Number	18915
Location	Hot Water Heater
Title	water heater



Call Center - WQI Checklist

Photos

Ticket Number	18915
Location	Other
Title	water filter



Monday, 13 May 2024, 08:00

Zone - D2-1809 19th Way

Location Code: D2-19TH1809

A. Resident Concerns

- (2) adults, and (1) child 1-1/2 years old.
- Resident for 1 years.
- Health Concerns
 - No concerns.
 - Resident was not aware of their home being water sampled to date.
 - Resident shared that they just had a miscarried and wanted to have their home water sampled.

B. Water Quality Observations and Results

- Unit was previously sampled on January 11, 2022.
 - No unusual observations.
 - No detections of organic chemicals.
 - Traces of Total Organic Carbon, barium, chromium, copper, lead, and selenium found.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water sample from bathroom sinks, and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) - (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) - Collected hot/cold water samples from kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – N/a
- Results of field testing from kitchen sink
 - pH -
 - 7.2 (cold)
 - 7.5 (hot)
 - Conductivity -
 - 246 µS/cm (cold)
 - 267 µS/cm (hot)
 - Free Chlorine -
 - 0.52 mg/L (cold)
 - 0.54 mg/L (hot)
- Temperature -
 - 73 °F (cold)
 - 122 °F (hot)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.



Photograph 1: Interior bathroom faucet aerator, clear of particles.



- Photograph 2: Kitchen sink active carbon PUR water filter.
- C. Hot Water Heater
- 40-gallon solar water heater was on premise. The water heater manufactured date was January 2022, and in good condition. No visible maintenance records found on the water heater. The pipe material is copper.
- D. Point-of-Use Treatment
- PUR water filter installed on the kitchen sink. Resident changes the water filter when the red light goes on.
 - Bathroom faucet and kitchen sink aerators were clear of any debris.
- E. Overall Assessment
- No unusual observations.
 - Water quality field parameters were within recommended limits at the time of inspection.
 - WQIWM analytical results will determine if drinking water is in compliance with applicable standards.
- F. Recommendations
- Follow up with WQIWM water quality results when available.
 - No additional actions required.

Summary of Chemistry Results
Zone D2
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	D2-19TH1809	
				Location Type:	Residence	
				Address:	1809 19th Way	
				Field Sample ID:	D2-TW-0008067-24092-N-WQI	D2-TW-0008067-24092-N-H-WQI
				Sample Date:	2024-05-13	2024-05-13
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Bacterial Test (in 100 mL)	Coliform	--	--	Absent	--	
	E. coli	--	--	Absent	--	
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	ND	ND	
Field Test (ppb)	Free Chlorine	4000	MCL	520	540	
Field Test (pH)	pH	--	--	7.26	7.49	
Field Test (ms/cm)	Specific Conductivity	--	--	0.250	0.270	
Field Test (degrees Celcuis)	Temperature	--	--	23.0	48.9	
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.00	2.06	
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	47500	--	
	Total Organic Carbon	--	--	ND	--	
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--	
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--	
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--	
	Petroleum Hydrocarbons, Total	--	--	ND	--	
Metals (ppb)	Copper	1300	MCL	30.3	--	
	Lead	15	MCL	ND	--	
	Mercury	2	MCL	ND	--	
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--	
	2-Methylnaphthalene	--	--	ND	--	
	Benzo(a)pyrene	0.2	MCL	ND	--	
	Naphthalene	--	--	ND	--	
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--	
	1,3,5-Trimethylbenzene	--	--	ND	--	

Summary of Chemistry Results
Zone D2
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	D2-19TH1809	
				Location Type:	Residence	
				Address:	1809 19th Way	
				Field Sample ID:	D2-TW-0008067-24092-N-WQI	D2-TW-0008067-24092-N-H-WQI
				Sample Date:	2024-05-13	2024-05-13
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Volatile Organic Compounds (ppb)	Benzene	5	MCL	ND	--	
	Ethylbenzene	700	MCL	ND	--	
	m,p-Xylene	--	--	ND	--	
	o-Xylene	--	--	ND	--	
	Toluene	1000	MCL	ND	--	
	Xylenes, Total	10000	MCL	ND	--	
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	
	Bromoform	--	--	ND	--	
	Chloroform	--	--	ND	--	
	Dibromochloromethane	--	--	ND	--	
	Total Trihalomethanes	80	MCL	ND	--	

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-19046
Call Date/Time	5/9/2024 4:06:49 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/17/2024 8:30:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	6632B 105th Street
Command	
Branch	
Property Manager	
Date of move-in	5/17/2022 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	2
Number of infants under the age of 2	0
Number and type of pets	1 dog and 2 rabbits
Call Center Complaint Summary / Initial Notes	been in the home for around 2 years, they do not drink the water besides for cooking/Laundry/showering some of the issues have been happening since moving in and some are new/worsing Dry skin, dry scalp, blister/burning mouth, eyes that burn after showering wants water 5 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	5/17/2022 12:00:00 AM
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	None None reported
Floating Particles	None None reported
Taste	Metallic Resident shared that when they turn on their tap on, the water has a metal taste, and after a few minutes of running the water the metal taste disappears.
Odor	None None reported
Staining	None None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Residents experiencing burning sensation during shower, dry, itchy scalp. Husband gets dry scalp.
Respiratory	None None reported
Gastrointestinal	Adults GI issues since moving in. Her husband has had stomach aches.
Headache	Adults Her husband has been getting more headaches.
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	Pets Resident's dog will sniff the tap water but doesn't like to drink it. The resident's rabbits will/has been drinking the tap water.

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Only cold water
Does it occur only when you first turn on the water or does it occur continuously?	Only when I first turn it on
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.37
Conductivity (µS/cm)	223.45
FreeChlorine (mg/L or ppm)	0.69
Cold Temp (degrees F)	76.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.52
Conductivity (µS/cm)	248.94
FreeChlorine (mg/L or ppm)	0.56
Hot Temp (degrees F)	122.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water. Turbidity 0 NTU (cold) / 0.08 NTU (hot)

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	Sink faucet
Bathroom - other - Condition of aerator	Looks new / clean

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.
No additional actions required.

Other Site Visit Notes Kitchen sink aerator, Clear of any debris.

Kitchen sink aerator housing, with no scale buildup.

40-gallon Rheem gas water heater was on premise with a manufactured date of December 13, 2021. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist**Photos**

Ticket Number	19046
Location	Other
Title	Kitchen Sink Aerator



Call Center - WQI Checklist**Photos**

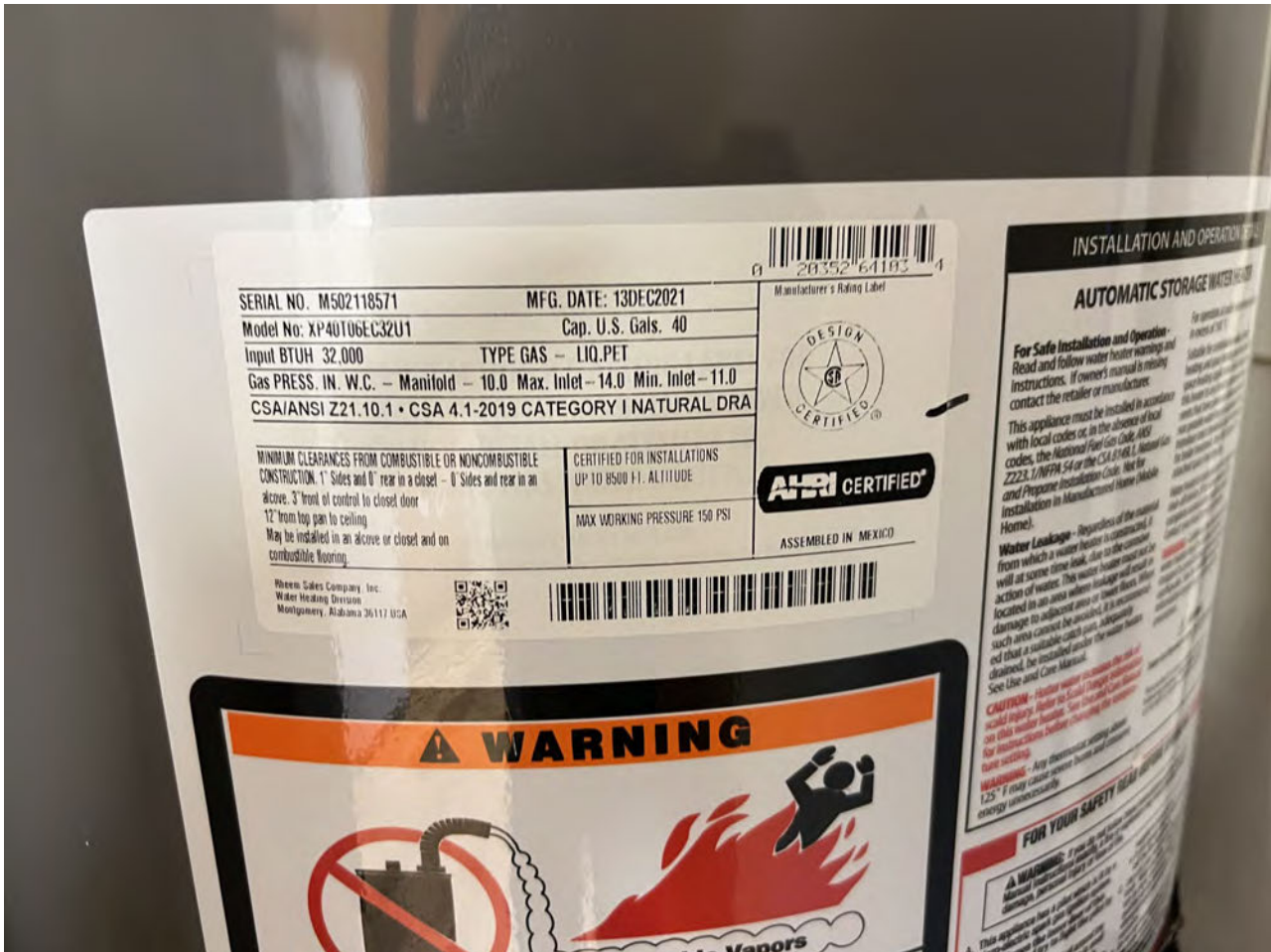
Ticket Number	19046
Location	Other
Title	Kitchen Sink Aerator Housing



Call Center - WQI Checklist

Photos

Ticket Number 19046
 Location Hot Water Heater
 Title water heater



Friday, 17 May 2024, 08:30

Zone – A3, 6632B 105th Street

Location Code: A3-105S6632B

A. Resident Concerns

- Household consists of (2) adults, (2) child, (1) dog, and (2) rabbits.
- Resident for two years.
- Health Concerns
 - Residents experiencing burning sensation during shower, dry, itchy scalp, GI issues since moving in. Residents have not sought medical care.
 - Since moving in, her husband has had stomach aches, and she has been getting more headaches and dry scalp.
 - Their dog after sniffing the tap water, doesn't like the to drink the tap water, but their rabbits will/has been drinking the tap water.
 - Resident shared that when they turn their tap on, the water has a metal taste, and after a few minutes of running the water the metal taste disappears.

B. Water Quality Observations and Results

- Unit was not previously sampled.
 - No unusual observations.
 - We confirmed the metal taste of the water at first, and within a few minutes of running the water, the metal taste was not present.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from bathroom sink, and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – N/a
- Results of field testing from kitchen sink
 - pH –
 - 7.37 (cold)
 - 7.52 (hot)
 - Conductivity
 - 223.45 µS/cm (cold)
 - 248.94 µS/cm (hot)
 - Turbidity
 - .00 NTU (cold)
 - .08 NTU (hot)
 - Free Chlorine -
 - 0.69 mg/L (cold)
 - 0.56 mg/L (hot)
- Temperature -

- 76 °F (cold)
- 122 °F (hot)
- No sheen, particles, discoloration, or cloudiness observed in hot or cold water.



- Photograph 1: Kitchen sink aerator, Clear of any debris.



- Photograph 2: Kitchen sink aerator housing, with no scale buildup.

C. Hot Water Heater

- 40-gallon Rheem gas water heater was on premise with a manufactured date of December 13, 2021.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

- No water filters installed.
- Bathroom faucet and kitchen sink aerators were clear of any particles.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- No additional actions required.

Summary of Chemistry Results
Zone A3
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	A3-105S6632B	
				Location Type:	Residence	
				Address:	6632B 105th Street	
				Field Sample ID:	A3-TW-0017466-24092-N-WQI	A3-TW-0017466-24092-N-H-WQI
				Sample Date:	2024-05-17	2024-05-17
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Bacterial Test (in 100 mL)	Coliform	--	--	Absent	--	
	E. coli	--	--	Absent	--	
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	ND	ND	
Field Test (ppb)	Free Chlorine	4000	MCL	690	560	
Field Test (pH)	pH	--	--	7.37	7.52	
Field Test (ms/cm)	Specific Conductivity	--	--	0.220	0.250	
Field Test (degrees Celcuis)	Temperature	--	--	24.2	50.1	
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.00	0.0830	
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	53200	--	
	Total Organic Carbon	--	--	ND	--	
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--	
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--	
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--	
	Petroleum Hydrocarbons, Total	--	--	ND	--	
Metals (ppb)	Copper	1300	MCL	9.40	--	
	Lead	15	MCL	ND	--	
	Mercury	2	MCL	ND	--	
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--	
	2-Methylnaphthalene	--	--	ND	--	
	Benzo(a)pyrene	0.2	MCL	ND	--	
	Naphthalene	--	--	ND	--	
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--	
	1,3,5-Trimethylbenzene	--	--	ND	--	

Summary of Chemistry Results
Zone A3
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	A3-105S6632B	
				Location Type:	Residence	
				Address:	6632B 105th Street	
				Field Sample ID:	A3-TW-0017466-24092-N-WQI	A3-TW-0017466-24092-N-H-WQI
				Sample Date:	2024-05-17	2024-05-17
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Volatile Organic Compounds (ppb)	Benzene	5	MCL	ND	--	
	Ethylbenzene	700	MCL	ND	--	
	m,p-Xylene	--	--	ND	--	
	o-Xylene	--	--	ND	--	
	Toluene	1000	MCL	ND	--	
	Xylenes, Total	10000	MCL	ND	--	
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	
	Bromoform	--	--	ND	--	
	Chloroform	--	--	ND	--	
	Dibromochloromethane	--	--	ND	--	
	Total Trihalomethanes	80	MCL	ND	--	

Plumbing 2 Toilets and 2 showe...	RK	(b) (6)	EG	(b) (6)	x E. EDWM Quarter 1 WQAT Summary Tech Memos/Checklists		Dec 14, 2023 11:59...	Dec 14, 2023 10:0...
Plumbing Guest Bathroom Main...	RK		EG	-	 Unit Garden-6632-6632B	CLOSED	Dec 14, 2023 11:59...	Dec 14, 2023 11:1...
Plumbing Primary Bathroom Hal...	VS		EG	-	 Unit Garden-6632-6632B	CLOSED	Jan 25, 2024 11:59 ...	Jan 24, 2024 9:55 ...
Plumbing Primary Bathroom Bot...	RG		EG	-	 Unit Garden-6632-6632B	CLOSED	Apr 14, 2024 11:59...	Apr 14, 2024 10:55...
Plumbing 6-11AM Guest Bathro...	KT		EG	-	 Unit Garden-6632-6632B	CLOSED	Feb 5, 2024 11:59 ...	Feb 1, 2024 12:06 ...
Plumbing 8:30 A.M. Guest Bathr...			EG	-	 Unit Garden-6632-6632B	CLOSED	May 2, 2024 11:59 ...	Apr 29, 2024 7:14 ...
Plumbing Primary Bathroom Ma...	ZB			-	 Unit Garden-6632-6632B	CLOSED	Jul 27, 2021 11:59 ...	Jul 27, 2021 10:40 ...
Plumbing Primary Bathroom Toil...				-	 Unit Garden-6632-6632B	CLOSED	Jul 27, 2021 11:59 ...	Jul 24, 2021 10:40 ...
Plumbing Primary Bathroom Sh...				-	 Unit Garden-6632-6632B	CLOSED	Oct 1, 2021 11:59 ...	Sep 26, 2021 10:18...

CATEGORY	Plumbing	PLACE	Unit 6632B / Building 6632 / Phase Garden
WORKSPACE	Maintenance	STATUS	Closed
ASSIGNEE	[redacted] vlake ready	OPENED	December 14, 2023, 10:06 AM (HST)
REPORTER	(b) (6) resident	CLOSED	December 14, 2023, 11:28 AM (HST)
RESIDENTS	[redacted]	ENTRY	Contact resident first
TAGS	[redacted]		

DESCRIPTION

2 Toilets and 2 showers has been making gurgling noises and bubbling up for the last few days. Now the showers are backed up and you can't flush the toilets because it's flooding out. Imported from Yardl WO# 7710676

DOCUMENTATION

Note

COMPLETED WO BY [redacted]

COMMENTS

(b) (6) Resident	Entry Instructions: Call before to schedule time. Need to put dog in crate	Dec 14, 2023 10:09 AM (HST)
(b) (6)	Returned residents vm- informed resident techs is on their way now for this urgent- Informed tech as well	Dec 14, 2023 10:15 AM (HST)

CATEGORY	Plumbing	PLACE	Unit 6632B / Building 6632 / Phase Garden
WORKSPACE	Maintenance	STATUS	Closed
ASSIGNEE	Make ready	OPENED	December 14, 2023, 11:15 AM (HST)
REPORTER	resident	CLOSED	December 14, 2023, 12:42 PM (HST)
RESIDENTS		ENTRY	Contact resident first
TAGS			

DESCRIPTION

Guest Bathroom Main valve Is leaking from the toilets on and off pipes. Maintenance crew just came a few minutes ago to fix the toilets and showers. Imported from Yardi WO# 7710904

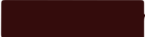
DOCUMENTATION

Note

we change the valve

COMMENTS

	Entry Instructions: Call ahead of time to schedule so I can put the dog in the crate.	Dec 14, 2023 11:17 AM (HST)
--	---	--------------------------------

CATEGORY	 Plumbing	PLACE	 Unit 6632B / Building 6632 / Phase Garden
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	 Technician	OPENED	January 24, 2024, 9:55 AM (HST)
REPORTER	 / resident	CLOSED	January 25, 2024, 4:16 PM (HST)
RESIDENTS		ENTRY	 Contact resident first
TAGS			

DESCRIPTION

Primary Bathroom Hallway and Master Toilets are constantly running and overflowing. The hallway and master showers is also backed up and is taking a long time to drain out. Black particles will back up into showers out of nowhere during the day. Imported from Yardi WO# 7830195

DOCUMENTATION

 Note

Ok

COMMENTS

(b) (6)

Entry Instructions: Please call ahead of time to schedule an appointment. Need to put dog away.	Jan 24, 2024 9:59 AM (HST)
Called resident informed her this is marked as urgent, emergency tech will call before arrival to take care of this	Jan 24, 2024 10:36 AM (HST)
Repair yesterday completed	Jan 25, 2024 4:16 PM (HST)

CATEGORY	Plumbing	PLACE	Unit 6632B / Building 6632 / Phase Garden
WORKSPACE	Maintenance	STATUS	Closed
ASSIGNEE	Service Technician	OPENED	February 1, 2024, 12:06 PM (HST)
REPORTER	(b) (6) resident	CLOSED	February 5, 2024, 6:45 PM (HST)
RESIDENTS		ENTRY	Contact resident first
TAGS			

DESCRIPTION

8-11 AM Guest Bathroom Hallway Bathroom is clogged and not draining properly. it's backed up and takes a long time to drain out. Maintenance came to fix it last week. But it still backed up and I told him before he left that it's still not draining properly. He said It's because the drain is small. It drained perfectly fine before. Also told the inspection person yesterday when they came but he said nothing he could do about it. Imported from Yard WO# 7856367

DOCUMENTATION

Note
Done

COMMENTS

	Entry Instructions: Call prior to coming over.	Feb 1, 2024 12:11 PM (HST)
	Confirmed for 2/5, FIRST APPT AT 8AM	Feb 1, 2024 12:18 PM (HST)
	Confirmed for 2/5, 8-11 am before lunch - called and left vm	Feb 2, 2024 4:32 PM (HST)
	Adjust overflow and pulled hairs outta drain everything draining fine tested and draining ok	Feb 5, 2024 8:34 AM (HST)

CATEGORY	 Plumbing	PLACE	 Unit 6632B / Building 6632 / Phase Garden
WORKSPACE	 Maintenance	STATUS	 Closed
ASSIGNEE	 (b) (6) service tech	OPENED	April 14, 2024, 10:55 AM (HST)
REPORTER	 resident	CLOSED	April 14, 2024, 1:23 PM (HST)
RESIDENTS		ENTRY	 Contact resident first
TAGS			

DESCRIPTION

Primary Bathroom Both bathrooms, guest bathroom and master bathroom is clogged and overflowing. It has been this way for months. It also backs up the showers. It keeps happening over and over again. Put in multiple maintenance orders and it works for a few days and backed up again. Toilets and shower making gurgling noises when 1 toilet flushes. Imported from Yardi WO# 8082952

DOCUMENTATION

 Note

snake drain from roof top. test ok

COMMENTS

(b) (6)

Entry Instructions: Call beforehand, need to put dog in crate

Apr 14, 2024
10:56 AM (HST)

CATEGORY	Plumbing	PLACE	Unit 6632B / Building 6632 / Phase Garden
WORKSPACE	Maintenance	STATUS	Closed
ASSIGNEE	Service Technician	OPENED	April 29, 2024, 7:14 PM (HST)
REPORTER	(b) (6) resident	CLOSED	May 2, 2024, 3:00 PM (HST)
RESIDENTS		ENTRY	Contact resident first
TAGS			

DESCRIPTION

8:30 A.M. Guest Bathroom Grouting is coming out from hallway bathroom. Water can leak through when showering can cause water damage and mold. Imported from Yardi WO# 8151755

DOCUMENTATION

Note
Completed

COMMENTS

(b) (6)	Entry Instructions: Call beforehand to schedule	Apr 29, 2024 7:15 PM (HST)
	lft msg to schedule	Apr 30, 2024 9:44 AM (HST)
	confirmed 5/2	Apr 30, 2024 10:47 AM (HST)
	Scrape old caulking and recaulk around tub	May 2, 2024 3:00 PM (HST)
	Completed	May 2, 2024 3:00 PM (HST)

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	3-19161
Call Date/Time	5/16/2024 10:37:49 AM
Call Center Operator	(b) (6)
Location Type	Non-Residence
Scheduled Visit (Date/Time)	5/17/2024 10:15:00 AM

Call Center Information**Caller/Resident Information**

Name	
Address	WEST LOCH FIRE STATION
Command	
Branch	
Property Manager	
Date of move-in	
Number of adults under 65	4
Number of adults 65 and older	1
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	1015; Connect with Navy/WQI Team prior to sampling. Observation of sheen and odor in the drinking water, about two weeks ago, during which a 1" copper water line feeding the fire station was replaced, due to a leak. Following the waterline repair approximately two weeks ago, personnel described brown water coming out from the kitchen sink faucet, and decided to flush the kitchen faucet until the water became clear. Observation of sheen in the water puddles on the ground just outside the fire station garage.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	Multiple instances intermittently
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	Sheen,Brown / Yellow observed sheen in water during waterline repair, flushed brown water from kitchen sink until it became clear
Floating Particles	
Taste	None
Odor	Other odor
Staining	Fixtures (sink / toilet / shower / tub) calcite build up and green/brown staining observed in sinks, toilets, urinals
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None
Respiratory	None
Gastrointestinal	None
Headache	None
Dizziness	None
Cough	None
Vision	None
Other	None

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	

Premise Plumbing History

Premise Plumbing History	Other plumbing repairs
	Waterline repair of a 1" copper water line feeding the station was replaced due to a leak

Water Quality Concerns

Cold water Sampling Location	Kitchen
pH (standard units)	7.40
Conductivity (µS/cm)	222.83
FreeChlorine (mg/L or ppm)	0.50
Cold Temp (degrees F)	79.00
Hot water Sampling Location	Kitchen
pH (standard units)	7.41
Conductivity (µS/cm)	235.64
FreeChlorine (mg/L or ppm)	0.53
Hot Temp (degrees F)	109.00
Water Quality Notes	Building was not previously sampled. No sheen, particles, discoloration, or cloudiness observed in hot or cold water. No unusual taste or odor detected. No detections of organic chemicals. Faucet aerator in kitchen was clean, but aerators on four faucets in the bathroom presented significant buildup of debris resembling dirt and rust. The particulate matter may be a result of the recent service line repair due to interior corrosion of the water heater.

Call Center - WQI Checklist

Filtration Systems

Do you have a whole home water filtration system?

Do you have point-of-use filters?

Kitchen sink

Refrigerator

Bathroom - first floor

Bathroom - second floor

Bathroom - second floor

Bathroom - other

Who installed the water filter

Water Fixtures

Staining or Scale visible buildup on water fixtures

Kitchen sink - Specific inspection point

Kitchen sink - Condition of aerator

Refrigerator - Specific inspection point

Refrigerator - Condition of aerator

Bathroom - first floor - Specific inspection point

Bathroom - first floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - second floor - Specific inspection point

Bathroom - second floor - Condition of aerator

Bathroom - other - Specific inspection point

Bathroom - other - Condition of aerator

Other Concerns

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Call Center - WQI Checklist**Summary and Recommendations**

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	No
	Follow up with EDWM water quality results when available. Determine water heater age and consider replacing the unit. Determine the water drinking fountain age and consider replacing the unit. Address cross connection concerns. No additional actions required.
Other Site Visit Notes	Observed calcite scale buildup on all appurtenances, sinks, toilets, urinals as well as green-brown staining, presumably arising due to growth of airborne microorganisms. Faucet aerator in kitchen was clean, but aerators on four faucets in the bathroom presented significant buildup of debris resembling dirt and rust. The particulate matter may be a result of the recent service line repair or could be due to interior corrosion of the water heater. 80-gallon electric A.O. Smith water heater was on premise and the manufactured date was not listed on the label. Visual observation of the water heater to have beginning signs of external corrosion at the bottom (See Photograph 10). No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19161
Location	[No Coverage]
Title	IMG_3594.jpg



Call Center - WQI Checklist

Photos

Ticket Number

19161

Location

First Floor - Bathroom - Sink

Title

Bathroom sink aerator



Call Center - WQI Checklist

Photos

Ticket Number	19161
Location	Other
Title	kitchen sink aerator



Friday, 17 May 2024, 10:15

Zone – WL, WEST LOCH FIRE STATION, JBPHH Federal Fire Dept- Station 9

Location Code: WL-BLDG0432

A. Non-Resident Concerns

- Fire Station is occupied 24/7 with each crew shift personnel consisting of between (4-5) adults and no pets.
- Customer Reported Health Concerns:
 - Observation of sheen and odor in the drinking water, about two weeks ago. During which a 1" copper water line feeding the fire station was replaced, due a leak.
 - Following the waterline repair approximately two weeks ago, personnel described brown water coming out from the kitchen sink faucet, and decided to flush the kitchen faucet until the water became clear.
 - Observation of sheen in the water puddles on the ground just outside the fire station garage.

B. Water Quality Observations and Results

- Building was not previously sampled.
 - No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
 - No unusual taste or odor detected.
 - No detections of organic chemicals.
 - Faucet aerator in kitchen was clean, but aerators on four faucets in the bathroom presented significant buildup of debris resembling dirt and rust. The particulate matter may be a result of the recent service line repair or could be due to interior corrosion of the water heater.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from kitchen sink, bathroom sinks, shower, water fountain, ice machine and in the (2) exterior hose bibs and utility sink for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – Lila Castellano
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – N/a
- Results of field testing from kitchen sink
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.40 (cold)
 - 7.41 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 222.83 μ S/cm (cold)
 - 235.64 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0)
 - 0.19 NTU (cold)
 - 0.13 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.50 mg/L (cold)

- 0.53 mg/L (hot)

Temperature -

- 79 °F (cold)
- 109 °F (hot)



- Photographs 1, 2, and 3: Observed calcite scale buildup on all appurtenances, sinks, toilets, urinals as well as green-brown staining, presumably arising due to growth of airborne microorganisms.



- Photograph 4, 5, 6, and 7: Faucet aerator in kitchen was clean, but aerators on four faucets in the bathroom presented significant buildup of debris resembling dirt and rust. The particulate matter may be a result of the recent service line repair or could be due to interior corrosion of the water heater.



- Photograph 8 and 9: Only one of the four exterior hose bibbs had a vacuum breaker installed. The spouts of the two faucets at the outdoor utility sink are installed too low, presenting potential cross connections.



- Photograph 10: Exterior of the water heater at the bottom with signs of corrosion.

C. Hot Water Heater

- 80-gallon electric A.O. Smith water heater was on premise and the manufactured date was not listed on the label.
- Visual observation of the water heater to have beginning signs of external corrosion at the bottom (See Photograph 10).
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

- Point-of-use filters are installed at the ice machine and the water fountain. The ice machine and filter (Arctic Pure Plus AR-10000P) was recently installed and is maintained by NAVFAC. Both replacement cartridge were not found in the NSF database. The water fountain filter (Everpure QC4 with EV9615-50 cartridge) was installed by the building occupants, and the filter s NSF-certified under Standard 42, 53, and 401. The cartridge has not been replaced since December 2023.
- Another filter was installed in the exterior corner of the fire truck bays but is no longer connected to any point-of-use.
- Kitchen water faucet filter was removed by fire crew due to low pressure flow. Note, prior to removing the water filter the crew replaced the filter, but the water pressure flow did not improve. Crew decided to remove the inline water filter, which increased water flow.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- WQIWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

Appendix E . EDWM Quarter 1 WQAT Summary Tech Memos/Checklists

- Follow up with EDWM water quality results when available.
- Determine water heater age and consider replacing the unit.
- Determine the water drinking fountain age and consider replacing the unit.
- Address cross connection concerns.
- No additional actions required.

Summary of Chemistry Results
West Loch
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	WL-BLDG0432	
				Location Type:	Non-Residence	
				Address:	WEST LOCH FIRE STATION	
				Field Sample ID:	WL-TW-0017862-24092-N-WQI	WL-TW-0017862-24092-N-H-WQI
				Sample Date:	2024-05-17	2024-05-17
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Bacterial Test (in 100 mL)	Coliform	--	--	Absent	--	
	E. coli	--	--	Absent	--	
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	ND	ND	
Field Test (ppb)	Free Chlorine	4000	MCL	500	530	
Field Test (pH)	pH	--	--	7.40	7.41	
Field Test (ms/cm)	Specific Conductivity	--	--	0.220	0.240	
Field Test (degrees Celcuis)	Temperature	--	--	26.2	42.6	
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.190	0.130	
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	54200	--	
	Total Organic Carbon	--	--	ND	--	
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--	
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--	
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--	
	Petroleum Hydrocarbons, Total	--	--	ND	--	
Metals (ppb)	Copper	1300	MCL	44.5	--	
	Lead	15	MCL	ND	--	
	Mercury	2	MCL	ND	--	
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--	
	2-Methylnaphthalene	--	--	ND	--	
	Benzo(a)pyrene	0.2	MCL	ND	--	
	Naphthalene	--	--	ND	--	
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--	

Summary of Chemistry Results
West Loch
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	WL-BLDG0432	
				Location Type:	Non-Residence	
				Address:	WEST LOCH FIRE STATION	
				Field Sample ID:	WL-TW-0017862-24092-N-WQI	WL-TW-0017862-24092-N-H-WQI
				Sample Date:	2024-05-17	2024-05-17
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Volatile Organic Compounds (ppb)	1,3,5-Trimethylbenzene	--	--	ND	--	
	Benzene	5	MCL	ND	--	
	Ethylbenzene	700	MCL	ND	--	
	m,p-Xylene	--	--	ND	--	
	o-Xylene	--	--	ND	--	
	Toluene	1000	MCL	ND	--	
	Xylenes, Total	10000	MCL	ND	--	
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	
	Bromoform	--	--	0.640	--	
	Chloroform	--	--	ND	--	
	Dibromochloromethane	--	--	0.530	--	
	Total Trihalomethanes	80	MCL	1.17	--	

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-19121
Call Date/Time	5/14/2024 11:30:21 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/22/2024 8:00:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	4072 Ironwood Loop
Command	
Branch	
Property Manager	
Date of move-in	12/22/2022 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	1
Call Center Complaint Summary / Initial Notes	had a test in September there were some detects wants another test to compare.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
Floating Particles	None
	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
Taste	None
	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.
Odor	None
	None reported.
Staining	None
	None reported.
Scaling (visible surface buildup)	

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Both residents indicated that they experience dry skin after washing their face.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	I don't know
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None Not recorded.
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.01
Conductivity (µS/cm)	244.59
FreeChlorine (mg/L or ppm)	0.64
Cold Temp (degrees F)	73.00
Hot water Sampling Location	Other
pH (standard units)	7.09
Conductivity (µS/cm)	268.80
FreeChlorine (mg/L or ppm)	0.27
Hot Temp (degrees F)	112.00
Water Quality Notes	No sheen, particles, discoloration, or cloudiness observed in hot or cold water.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
	No water filters installed.
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure	
Hot Water Temperature	Good
Cross-Connection	
Irrigation	

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes
	Follow up with EDWM water quality results when available. No additional actions required.
Other Site Visit Notes	Water quality field parameters were within recommended limits at the time of inspection.

Call Center - WQI Checklist**Photos**

Ticket Number	19121
Location	[No Coverage]
Title	kitchen sink aerator



Call Center - WQI Checklist

Photos

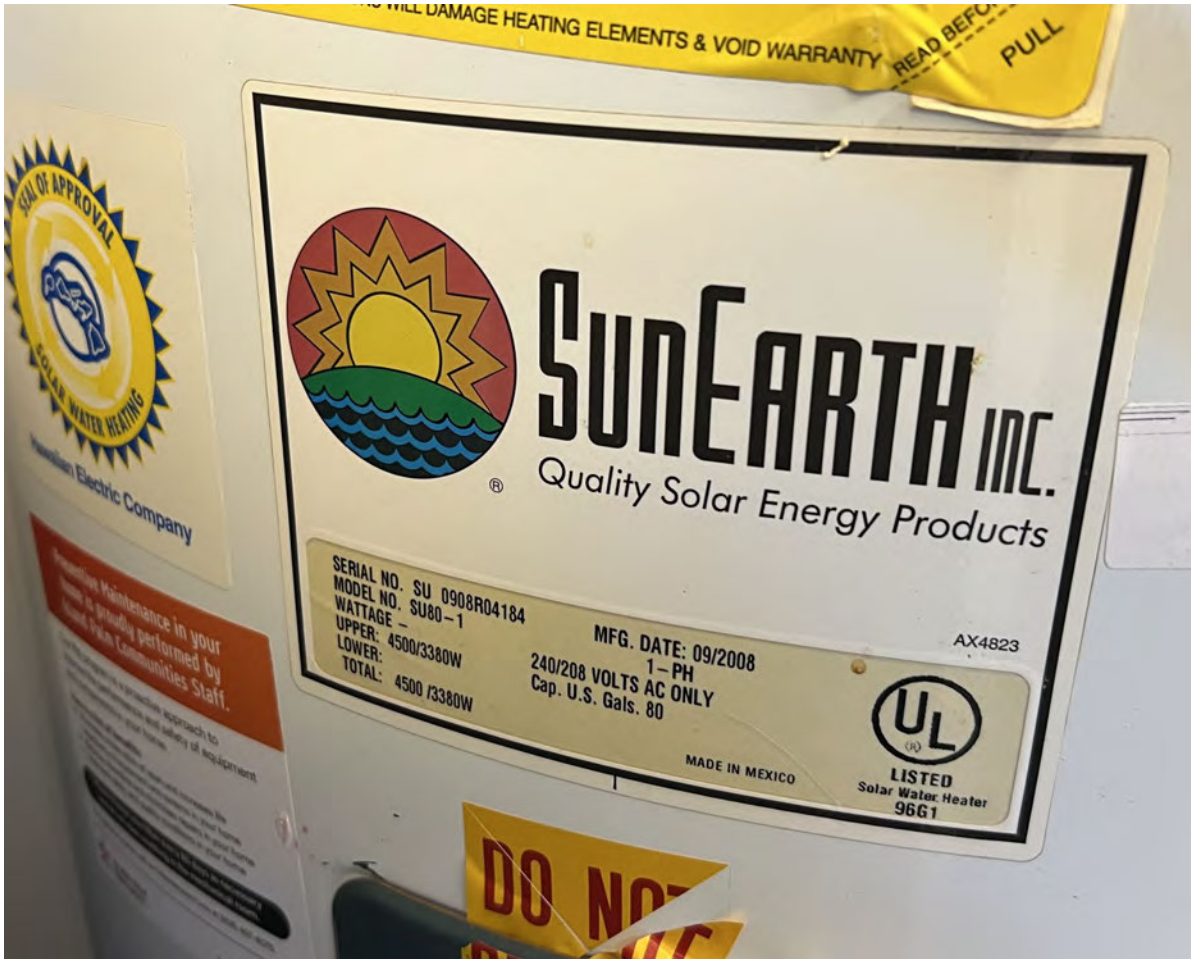
Ticket Number	19121
Location	[No Coverage]
Title	upper hallway bathroom sink aerator



Call Center - WQI Checklist

Photos

Ticket Number 19121
Location [No Coverage]
Title hot water heater



Wednesday, 22 May 2024, 08:00

Zone – H1, 4072 Ironwood Loop
Location Code: H1-IRON4072

A. Resident Concerns

- Household consists of (2) adults and (1) dog.
- Resident for seventeen months.
- Customer Reported Health Concerns
 - Resident wife indicated that she experiences dry skin on her face after washing her face.
 - According to wife, husband also seems to have dry skin after washing his face.

B. Water Quality Observations and Results

- Unit was previously sampled on 15 September 2023.
 - Traces of Chromium, Copper, Lead, Barium, Selenium and Petroleum Hydrocarbons (as Diesel) found.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located on the upper-level master bath, upper-level hallway, the lower-level kitchen, and lower-level bathroom for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the upper-level hallway bathroom faucet.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.01 (cold)
 - 7.09 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 244.59 μ S/cm (cold)
 - 268.80 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.02 NTU (cold)
 - 0.12 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.64 mg/L (cold)
 - 0.27 mg/L (hot)
 - Temperature -
 - 73 °F (cold)

- 112 °F (hot)



- Photograph 1 & 2: Exterior and interior view of kitchen sink aerator. No debris was identified upon visual inspection.



- Photograph 3 & 4: Exterior and interior view of upper-level bathroom faucet aerator. No debris was identified upon visual inspection.

C. Hot Water Heater

- 80-gallon Sun Earth, Inc. electric water heater with a manufactured date of September 2008.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

- No water filters installed.
- Bathroom faucet and kitchen sink aerators were clear of any particles.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- No additional actions required.

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	4072 Ironwood Loop	4072 Ironwood Loop
Field Sample ID:	H1-TW-0012930-24092-A-WQI	H1-TW-0012930-24092-A-H-WQI
Sample Date:	2024-05-22	2024-05-22
Sample Type:	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240522-2568-149	
		Contaminant Levels	SDG:	
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--
BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240522-2568-149	SDG: 240522-2568-149
		Contaminant Levels	SDG:	
Heterotrophic Plate Count	None	None	2.00 U	2.00 U
Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
		Contaminant Levels		
Free Chlorine	None	4	0.270-0.640	0.270-0.640
GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64532	
		Contaminant Levels	SDG:	
Alkalinity, Total (as CaCO3)	None	None	54.2	--
Total Organic Carbon	None	None	0.200 U	--
HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64532	
		Contaminant Levels	SDG:	
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 UJ	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--
Environmental				
METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64532	
Copper	1300	1300	8.60	--
Lead	15	15	0.420 J	--
Mercury	2	2	0.0250 U	--
Environmental				
SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64532	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--
Environmental				
VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Protection Agency Maximum Contaminant Levels	SDG: DA64532	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.250 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--

Table X-X**Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)****Chemistry Results**

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte

Results in green font also exceed the DOH MCL

Results in blue font also exceed the EPA MCL

Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter

MPN/ml = Most Probable Number per Milliliter

CFU/100ml = Colony Forming Units per 100 Milliliters

µg/L = Micrograms per Liter

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-19358
Call Date/Time	5/28/2024 7:14:36 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	5/31/2024 9:00:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	210 16th Street
Command	
Branch	
Property Manager	
Date of move-in	5/1/2024 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	4
Number of infants under the age of 2	0
Number and type of pets	2 dogs
Call Center Complaint Summary / Initial Notes	after the water line break on Kuntz this last week the water had an earthy smell and a chlorine smell, with resulting GI issues, this has gotten better after the line has been closed up but they still want a test to be sure. The smell was at all the sinks wants water, 6 in the home.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	5/15/2024 12:00:00 AM
Is this an ongoing issue/concern, or does it only happen at certain times?	One-time event only
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	None None reported
Floating Particles	None None reported
Taste	Other Chlorine
Odor	Musty An "earthy/mildew" odor for a brief period
Staining	None None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	Adults,Children,Pets Gastrointestinal issues such as diarrhea. The resident noted the health issues were experienced during the week that construction was taking place on Kuntz Avenue. The resident is no longer experiencing health issues from water use.
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Upstairs
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	Yes

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.30
Conductivity (µS/cm)	246.38
FreeChlorine (mg/L or ppm)	0.55
Cold Temp (degrees F)	79.34
Hot water Sampling Location	Other
pH (standard units)	7.20
Conductivity (µS/cm)	156.01
FreeChlorine (mg/L or ppm)	0.53
Hot Temp (degrees F)	106.52
Water Quality Notes	Results of field testing from the upper-level hallway bathroom.

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	Sink faucet
Bathroom - other - Condition of aerator	Looks new / clean

Other Concerns

Water Pressure
Hot Water Temperature
Cross-Connection
Irrigation

Call Center - WQI Checklist**Summary and Recommendations**

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.

A review of the water heater maintenance records should be conducted to determine the date of last flushing. Consider water heater replacement since water heater age is older than the recommended service life of 10 years (13 years).

No additional actions required.

Other Site Visit Notes

Interior view of kitchen sink aerator. No debris was identified upon visual inspection.

Interior view of hallway bathroom faucet aerator. No debris was identified upon visual inspection.

Mild corrosion around the base of the water heater.

80-gallon Bradford White Corp. electric water heater with a manufactured date of August 2011. Water heater appeared to have signs of mild corrosion around the base (Figure 3.). No other issues were observed. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19358
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19358
Location	First Floor - Bathroom - Sink
Title	Hallway Bathroom Faucet Aerator



Friday, 31 May 2024, 09:00

Zone – D2, 210 16TH Street
Location Code: D2-16TH0210

A. Resident Concerns

- Household consists of (2) adults, (4) kids, and (2) dogs.
- Resident for one month.
- Customer Reported Health Concerns
 - Resident wife indicated that the entire household, including pets, were experiencing gastrointestinal issues such as diarrhea. The resident noted the health issues were experienced during the week that construction was taking place on Kuntz Avenue. The resident is no longer experiencing health issues from water use.
 - According to wife, for about one (1) week the water initially had an “earthy/mildew” odor for a brief period followed by a strong chlorine odor/taste. She believes this was the result of the main line break and the following construction on Kuntz Ave, as these concerns disappeared after the construction was finished.

B. Water Quality Observations and Results

- Unit was NOT previously sampled.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located in the kitchen and hallway bathroom for rapid TPH test. Resident requested to refrain from entering master bathroom due to health conditions related to one of her children.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen faucet.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.3 (cold)
 - 7.2 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 246.38 μ S/cm (cold)
 - 156.01 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.13 NTU (cold)
 - 0.15 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.55 mg/L (cold)
 - 0.53 mg/L (hot)

- Temperature -
 - 79.34 °F (cold)
 - 106.52 °F (hot)



- Figure 1. Interior view of kitchen sink aerator. No debris was identified upon visual inspection.



- Figure 2. Interior view of hallway bathroom faucet aerator. No debris was identified upon visual inspection.

C. Hot Water Heater

- 80-gallon Bradford White Corp. electric water heater with a manufactured date of August 2011.
- Water heater appeared to have signs of mild corrosion around the base (Figure 3.). No other issues were observed.
- No visible maintenance records were found on the water heater.
- The pipe material is copper.



Figure 3. Mild corrosion around the base of the water heater.

D. Point-of-Use Treatment

- No water filters installed.

E. Overall Assessment

- Water quality observations ceased following the end of construction on Kuntz Ave due to water main distribution line repair.
- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- A review of the water heater maintenance records should be conducted to determine the date of last flushing. Consider water heater replacement since water heater age is older than the recommended service life of 10 years (13 years).
- No additional actions required.

Summary of Chemistry Results
Zone D2
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	D2-16TH0210	
				Location Type:	Residence	
				Address:	210 16th Street	
				Field Sample ID:	D2-TW-0007506-24092-N-WQI	D2-TW-0007506-24092-N-H-WQI
				Sample Date:	2024-05-31	2024-05-31
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Bacterial Test (in 100 mL)	Coliform	--	--	Absent	--	
	E. coli	--	--	Absent	--	
Bacterial Test (MPN/mL)	Heterotrophic Plate Count	--	--	ND	ND	
Field Test (ppb)	Free Chlorine	4000	MCL	550	530	
Field Test (pH)	pH	--	--	7.30	7.18	
Field Test (ms/cm)	Specific Conductivity	--	--	0.250	0.260	
Field Test (degrees Celcuis)	Temperature	--	--	26.3	41.4	
Field Test (nephelometric turbidity unit)	Turbidity	5	MCL	0.130	0.150	
General Chemistry (ppb)	Alkalinity, Total (as CaCO3)	--	--	61200	--	
	Total Organic Carbon	--	--	ND	--	
Hydrocarbons (ppb)	Petroleum Hydrocarbons (as Diesel)	--	--	ND	--	
	Petroleum Hydrocarbons (as Gasoline)	--	--	ND	--	
	Petroleum Hydrocarbons (as Oil)	--	--	ND	--	
	Petroleum Hydrocarbons, Total	--	--	ND	--	
Metals (ppb)	Copper	1300	MCL	4.80	--	
	Lead	15	MCL	ND	--	
	Mercury	2	MCL	ND	--	
Synthetic Organic Compounds (ppb)	1-Methylnaphthalene	--	--	ND	--	
	2-Methylnaphthalene	--	--	ND	--	
	Benzo(a)pyrene	0.2	MCL	0.0130	--	
	Naphthalene	--	--	ND	--	
Volatile Organic Compounds (ppb)	1,2,4-Trimethylbenzene	--	--	ND	--	
	1,3,5-Trimethylbenzene	--	--	ND	--	

Summary of Chemistry Results
Zone D2
Drinking Water Sampling, Joint Base Pearl Harbor - Hickam, Oahu, Hawaii

Notes:
ND = Not Detected
ISP = Incident Specific Parameter
EAL = DOH Environmental Action Level
EPA MCL = EPA Maximum Contaminant Level
All Results shown in Parts per Billion (ppb), with the exception of Field and Bacterial Test results
Parts per Million (ppm)
Parts per Thousand (ppth)
§ - Exceeds Screening Level
-- = No Information Available
N (Normal) = Full compliance sample
FD (Field Duplicate) = Extra sample taken for quality control
N (Grab, Resample) = Additional follow-up sample
MPN/mL = Most probable number per milliliter

				Location ID:	D2-16TH0210	
				Location Type:	Residence	
				Address:	210 16th Street	
				Field Sample ID:	D2-TW-0007506-24092-N-WQI	D2-TW-0007506-24092-N-H-WQI
				Sample Date:	2024-05-31	2024-05-31
				Sample Type:	N (Normal)	N (Normal)
Method Group	Analyte	DOH Project Screening Level	Basis of Project Screening Level			
Volatile Organic Compounds (ppb)	Benzene	5	MCL	ND	--	
	Ethylbenzene	700	MCL	ND	--	
	m,p-Xylene	--	--	ND	--	
	o-Xylene	--	--	ND	--	
	Toluene	1000	MCL	ND	--	
	Xylenes, Total	10000	MCL	ND	--	
Trihalomethanes (ppb)	Bromodichloromethane	--	--	ND	--	
	Bromoform	--	--	ND	--	
	Chloroform	--	--	ND	--	
	Dibromochloromethane	--	--	ND	--	
	Total Trihalomethanes	80	MCL	ND	--	

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19430
Call Date/Time	6/2/2024 12:21:44 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/4/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	4509 Cakon Place
Command	
Branch	
Property Manager	
Date of move-in	6/1/2024 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	2 cats
Call Center Complaint Summary / Initial Notes	no skin or GI issues have been in the home for a month, noticed residue and did a test, collected some, and let it dry there was white stuff left over. there is a earthy type of smell form all sinks wants water 2 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	6/1/2024 12:00:00 AM
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	None None reported
Floating Particles	None None reported
Taste	Other Earthy
Odor	Musty Earthy
Staining	None None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist**Health Concerns**

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit**General Issue Information**

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom,Upstairs,Downstairs
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Only cold water
Does it occur only when you first turn on the water or does it occur continuously?	Continuously
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.43
Conductivity (µS/cm)	225.22
FreeChlorine (mg/L or ppm)	0.15
Cold Temp (degrees F)	73.49
Hot water Sampling Location	Kitchen
pH (standard units)	7.51
Conductivity (µS/cm)	247.13
FreeChlorine (mg/L or ppm)	0.49
Hot Temp (degrees F)	106.95
Water Quality Notes	No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0 NTU / (hot): 0 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.

As shown in Figure 3., the debris observed in the aerator may be the result of degradation of a washer/gasket component within the system. Recommend that maintenance check condition of washers and gaskets at the faucet and upstream as appropriate to determine the source.

No additional actions required

Other Site Visit Notes

Kitchen sink aerator: No debris was identified upon visual inspection.

Hallway bathroom faucet aerator: Little to no debris was identified upon visual inspection.

Upstairs master bathroom faucet aerator: Debris was identified upon visual inspection. The debris appeared to be made of rubber gasket material.

80-gallon SunEarth electric water heater: manufacture date could not be determined. Water heater did not have any signs of corrosion. No visible maintenance records were found on the water heater. The pipe material is copper.

Call Center - WQI Checklist**Photos**

Ticket Number	19430
Location	Other
Title	Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19430
Location	First Floor - Bathroom - Sink
Title	hallway bathroom faucet aerator



Call Center - WQI Checklist

Photos

Ticket Number	19430
Location	Second Floor - Bathroom 2 - Sink
Title	upstairs master bathroom faucet aerator



Tuesday, 04 June 2024, 08:00

Zone – F1, 4509 Cakon Place
Location Code: F1-CAKO4509

A. Resident Concerns

- Household consists of (2) adults and (2) cats.
- Residents have lived in the home for approximately one month since the beginning of May 2024.
- Customer Reported Health Concerns
 - Resident wife indicated that since moving in, the water has had an “earthy” odor. No other concerns were disclosed.

B. Water Quality Observations and Results

- Unit was NOT previously sampled.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located in the kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present
- Results of field testing from the kitchen sink.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.43 (cold)
 - 7.51 (hot)
 - Conductivity - (Acceptable Range 0 to 800 $\mu\text{S}/\text{cm}$)
 - 225.22 $\mu\text{S}/\text{cm}$ (cold)
 - 247.13 $\mu\text{S}/\text{cm}$ (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.0 NTU (cold)
 - 0.0 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.15 mg/L (cold)
 - 0.49 mg/L (hot)
 - Temperature
 - 73.49 °F (cold)
 - 106.95 °F (hot)



- **Figure 1.** Interior view of kitchen sink aerator. No debris was identified upon visual inspection.



- **Figure 2.** Interior view of hallway bathroom faucet aerator. Little to no debris was identified upon visual inspection.



- **Figure 3.** Interior view of upstairs master bathroom faucet aerator. Debris was identified upon visual inspection. The debris appeared to be made of rubber gasket material.

C. Hot Water Heater

- 80-gallon SunEarth electric water heater, manufacture date could not be determined.

Commented [10]: This is formatted weird on my computer and I'm having trouble fixing it. Make sure the "Figure 2" bullet isn't on the same line as the pic.

Commented [11]: It looks fine to me but sometimes when I'm on word via the web app it can display weirdly at times

Commented [12]: Based on your recommendation, I'd include something like "The debris appeared to be made of rubber gasket material." Please edit based on your observation

- Water heater did not have any signs of corrosion.
- No visible maintenance records were found on the water heater.
- The pipe material is copper.

Point-of-Use Treatment

- No water filters installed.

D. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

E. Recommendations

- Follow up with EDWM water quality results when available.
- As shown in Figure 3., the debris observed in the aerator may be the result of degradation of a washer/gasket component within the system. Recommend that maintenance check condition of washers and gaskets at the faucet and upstream as appropriate to determine the source.
- No additional actions required.

Table X-X
EDWM F1 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	4509 Cakon Place	4509 Cakon Place
Field Sample ID:	F1-TW-0008732-24092-N-WQI	F1-TW-0008732-24092-N-H-WQI
Sample Date:	2024-06-04	2024-06-04
Sample Type:	N	N

BAC (CFU/100ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency	SDG:	
		Maximum Contaminant Levels	240604-2568-255	
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

BAC (MPN/ml)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency	SDG:	SDG:
		Maximum Contaminant Levels	240604-2568-255	240604-2568-255
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

Field Tests (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency	SDG:	
		Maximum Contaminant Levels		
Free Chlorine	None	4	0.150-0.490	0.150-0.490

GENCHEM (mg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency	SDG:	
		Maximum Contaminant Levels	DA64744	
Alkalinity, Total (as CaCO3)	None	None	52.0	--
Total Organic Carbon	None	None	0.350 J	--

HC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency	SDG:	
		Maximum Contaminant Levels	DA64744	
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency	SDG:	
		Maximum Contaminant Levels	DA64744	

Table X-X
EDWM F1 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Copper	1300	1300	55.6	--
Lead	15	15	0.130 U	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64744	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64744	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.390 J	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.320 J	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.250 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	0.71	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter
MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters
µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	3-19432
Call Date/Time	6/3/2024 8:43:17 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/5/2024 8:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5498B Bittern Avenue
Command	
Branch	
Property Manager	
Date of move-in	11/1/2017 12:00:00 AM
Number of adults under 65	4
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	2 dogs
Call Center Complaint Summary / Initial Notes	0800 - connect with WQI/NAVY

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Only cold water
Does it occur only when you first turn on the water or does it occur continuously?	
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.39
Conductivity (µS/cm)	228.74
FreeChlorine (mg/L or ppm)	0.61
Cold Temp (degrees F)	81.77
Hot water Sampling Location	Other
pH (standard units)	7.36
Conductivity (µS/cm)	244.20
FreeChlorine (mg/L or ppm)	0.54
Hot Temp (degrees F)	115.07
Water Quality Notes	Unit was previously sampled on 2 October 2023. Traces of Benzo(a)pyrene, Chromium, Copper, Lead, Barium, Bromoform, Selenium found. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB: 0 NTU (cold), 0 NTU (hot)

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	
Bathroom - first floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Staining present, Mold / Mildew
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other No

Follow up with EDWM water quality results when available.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, miniscule specs of debris can be observed.

hallway bathroom sink aerator: Evidence of copper oxidation visualized as blue-green corrosion surrounding the gasket. The outer rim of the aerator appears to have accumulated amount of biological growth, mineral deposits, and saponification.

40-gallon water heater manufactured by Bradford White Corp. on 29 March 2006. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19432
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19432

Location

First Floor - Bathroom - Sink

Title

Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19432
Location	Other
Title	kitchen sink aerator



Wednesday, 5 June 2024, 08:00

Zone – A3, 5498B Bittern Ave

Location Code: A3-BITT5498B

A. Resident Demographic/ Concerns

- Household consists of (4) adults and (2) dogs.
- Resident for approximately 6.5 years since November 2017.
- Resident had no reported health concerns.

B. Water Quality Observations and Results

- Unit was previously sampled on 2 October 2023.
 - Traces of Benzo(a)pyrene, Chromium, Copper, Lead, Barium, Bromoform, and Selenium found.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located on the hallway bathroom and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.39 (cold)
 - 7.36 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 228.74 μ S/cm (cold)
 - 244.20 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.0 NTU (cold)
 - 0.0 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.61 mg/L (cold)
 - 0.54 mg/L (hot)
 - Temperature -
 - 81.77 °F (cold)
 - 115.07 °F (hot)



- **Figure 1.** Interior view of kitchen sink aerator. Upon visual inspection, miniscule specs of debris can be observed.



- **Figure 2.** Interior view of hallway bathroom sink aerator. Evidence of copper oxidation visualized as blue-green corrosion surrounding the gasket. The outer rim of the aerator appears to have accumulated amount of biological growth, mineral deposits, and saponification.

C. Hot Water Heater

- 40-gallon water heater manufactured by Bradford White Corp. on 29 March 2006.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.

- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

- No water filters installed.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
- No additional actions required.

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5498B Bittern Avenue	5498B Bittern Avenue
Field Sample ID:	A3-TW-0016958-24092-N-WQI	A3-TW-0016958-24092-N-H-WQI
Sample Date:	2024-06-05	2024-06-05
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240605-2568-270	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240605-2568-270	SDG: 240605-2568-271
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.540-0.610	0.540-0.610

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64782	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	51.9	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64782	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64782	
METAL (µg/L)				

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Copper	1300	1300	21.1	--
Lead	15	15	0.130 U	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64782	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA64782	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.250 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter
CFU/100ml = Colony Forming Units per 100 Milliliters
MPN/ml = Most Probable Number per Milliliter
µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19662
Call Date/Time	6/13/2024 12:16:00 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/18/2024 9:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	6392 101st Street
Command	
Branch	
Property Manager	
Date of move-in	6/11/2024 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	new in the home, not experiencing anything with the water, but is not drinking it either. wants water 2 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.29
Conductivity (µS/cm)	245.57
FreeChlorine (mg/L or ppm)	1.04
Cold Temp (degrees F)	80.20
Hot water Sampling Location	Kitchen
pH (standard units)	7.32
Conductivity (µS/cm)	258.06
FreeChlorine (mg/L or ppm)	0.87
Hot Temp (degrees F)	100.14
Water Quality Notes	Unit was not previously sampled. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0.65 NTU / (hot): 0.20 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other No

Follow up with EDWM water quality results when available.
No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris can be observed.

hallway bathroom sink aerator: Upon visual inspection, no debris can be observed.

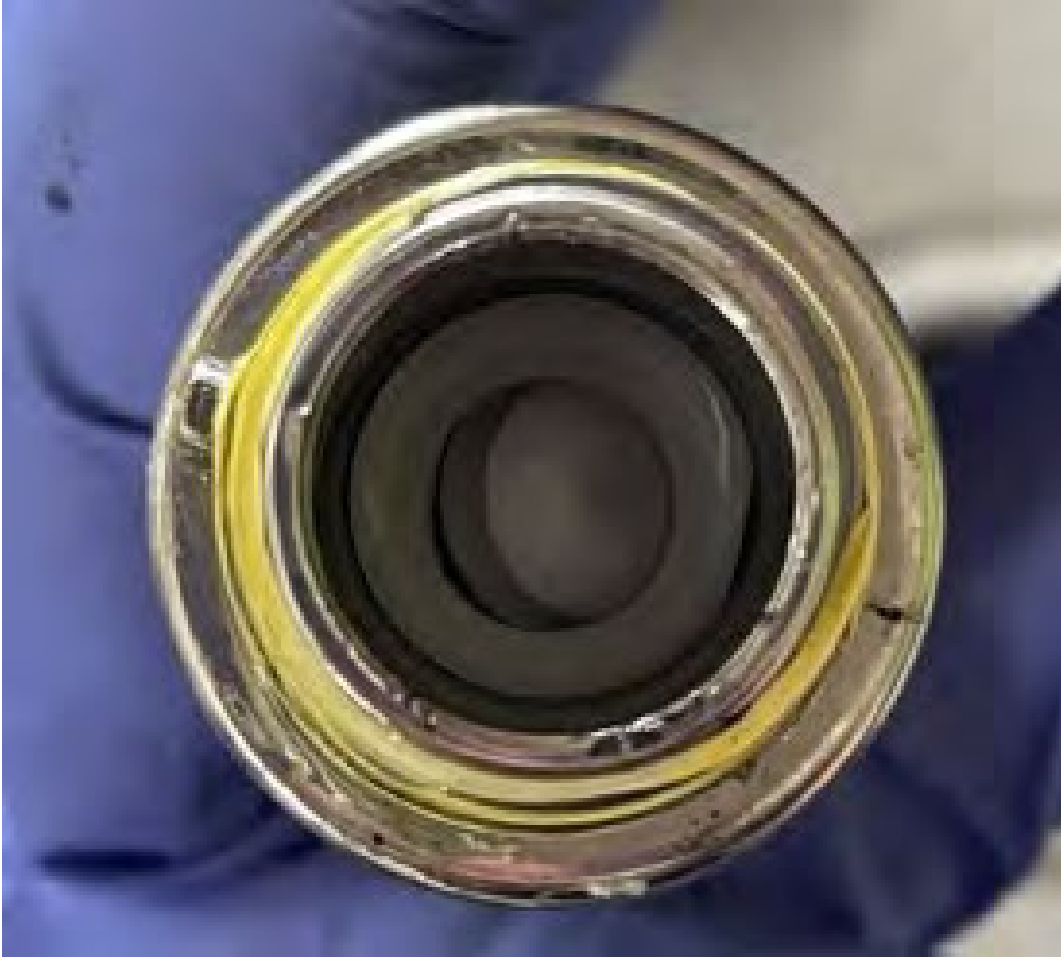
hallway bathroom sink aerator: Upon visual inspection, no debris can be observed.

40-gallon water heater manufactured by US/Craftmaster Water Heater Co. on the month of August 2015. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. A request for records was made by Navy to Kapilina Beach Homes, prior to appointment, to which they indicated that no records of maintenance were available. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19662
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19662
Location	First Floor - Bathroom - Sink
Title	Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

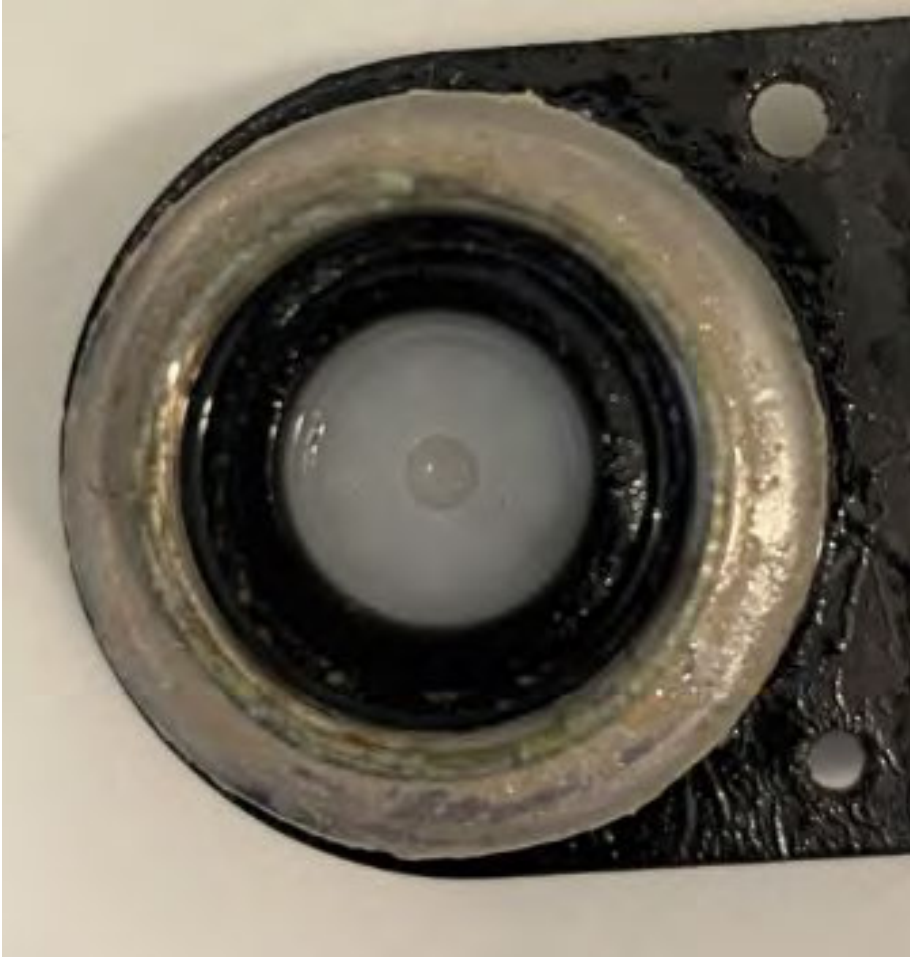
19662

Location

First Floor - Bathroom - Sink

Title

Interior View of Master Bathroom Sink Aerator



Tuesday, 18 June 2024, 09:00

Zone – A3, 6392 101st Street

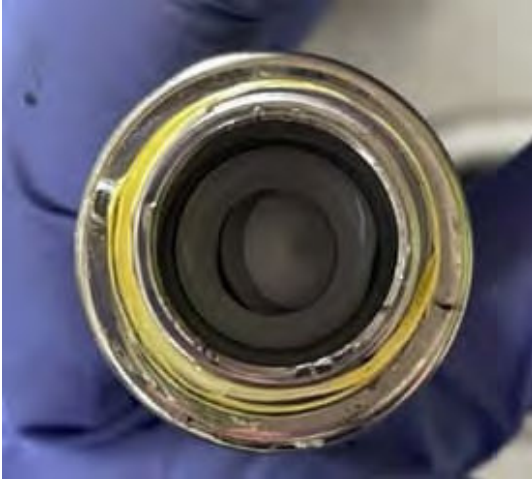
Location Code: A3-101S6392

A. Resident Demographic/ Concerns

- Household consists of two (2) adults.
- Resident as of 11th June 2024.
- Resident had general concerns about the water quality upon recently moving in, however, no specific health or water quality concerns were reported.

B. Water Quality **Observations and Results**

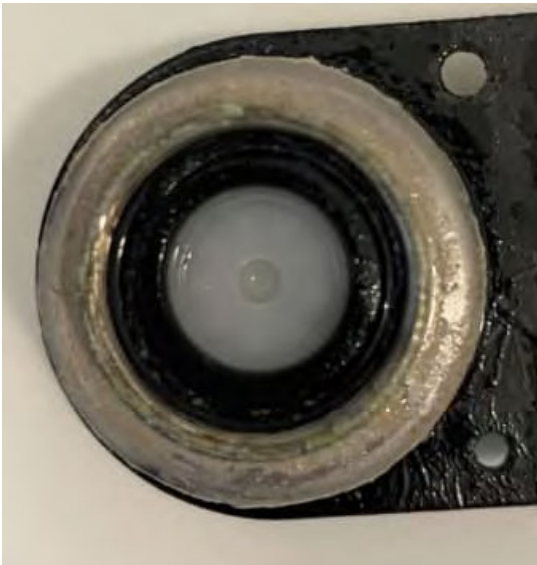
- Unit was not previously sampled.
- No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
- No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located in the kitchen, hallway bathroom, and master bathroom for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the kitchen sink.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.29 (cold)
 - 7.32 (hot)
 - Conductivity - (Acceptable Range 0 to 800 µS/cm)
 - 245.57 µS/cm (cold)
 - 258.06 µS/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.65 NTU (cold)
 - 0.20 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 1.04 mg/L (cold)
 - 0.87 mg/L (hot)
 - Temperature -
 - 80.20 °F (cold)
 - 100.14 °F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris can be observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Upon visual inspection, no debris can be observed.



- Figure 3. Interior view of master bathroom sink aerator. Upon visual inspection, no debris can be observed.

C. Hot Water Heater

- 40-gallon water heater manufactured by US/Craftmaster Water Heater Co. on the month of August 2015.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater. A request for records was made by Navy to Kapilina Beach Homes, prior to appointment, to which they indicated that no records of maintenance were available.
- The pipe material is copper.

D. Point-of-Use Treatment

- No water filters installed.

E. Overall Assessment

- No unusual observations.
- Resident did not report any water quality concerns.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- No additional actions required.

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	6392 101st Street	6392 101st Street
Field Sample ID:	A3-TW-0017251-24092-N-WQI	A3-TW-0017251-24092-N-H-WQI
Sample Date:	2024-06-18	2024-06-18
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240618-2568-393	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240618-2568-393	SDG: 240618-2568-394
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.870-1.04	0.870-1.04

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65081	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	58.5	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65081	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65081	
METAL (µg/L)				

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Copper	1300	1300	13.4	--
Lead	15	15	0.150 J	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65081	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65081	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter
CFU/100ml = Colony Forming Units per 100 Milliliters
MPN/ml = Most Probable Number per Milliliter
µg/L = Micrograms per Liter

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-19692
Call Date/Time	6/14/2024 12:11:20 PM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/24/2024 9:00:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	6200A Ibis Avenue
Command	
Branch	
Property Manager	
Date of move-in	5/3/2024 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	3
Number of infants under the age of 2	0
Number and type of pets	1 dog
Call Center Complaint Summary / Initial Notes	new resident in the home just a month, wants a test, has noticed that they are just a little itchier after showers wants water, 5 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults,Children Itchy
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom,Other
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Only cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.29
Conductivity (µS/cm)	238.39
FreeChlorine (mg/L or ppm)	0.03
Cold Temp (degrees F)	77.23
Hot water Sampling Location	Other
pH (standard units)	7.27
Conductivity (µS/cm)	254.64
FreeChlorine (mg/L or ppm)	0.14
Hot Temp (degrees F)	101.82
Water Quality Notes	Unit was not previously sampled. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0.12 NTU / (hot): 0.81 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Recommend conducting premise flushing to re-establish appropriate free chlorine levels.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, miniscule specs of debris can be observed.

hallway bathroom sink aerator: Evidence of metal shavings were present likely as a result from recent plumbing repairs/modifications.

master bathroom sink aerator: The green debris appears to be the result of oxidized copper shavings likely from the recent plumbing repairs/modifications.

40-gallon water heater manufactured by Rheem on 09 January 2020. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. A request for records was made by Navy to Kapilina Beach Homes prior to appointment, however, a response has not been received. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19692
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19692

Location

First Floor - Bathroom - Sink

Title

Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19692

Location

First Floor - Bathroom - Sink

Title

Interior View of Master Bathroom Sink Aerator



Monday, 24 June 2024, 0900

Zone – A3, 6200A Ibis Ave

Location Code: A3-IBIS6200A

A. Resident Demographic/ Concerns

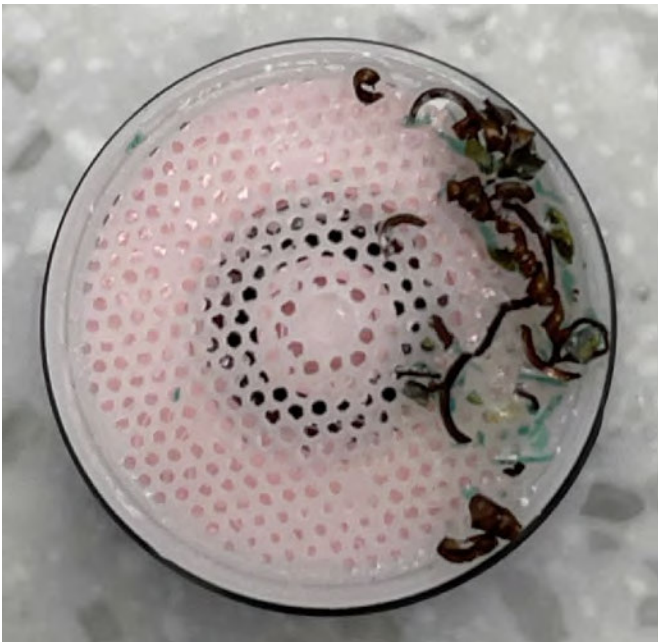
- Household consists of two (2) adults, three (3) kids, and one (1) dog.
- Resident as of 3 May 2024.
- Resident had general concerns about the water quality upon recently moving in, however, no specific health or water quality concerns were reported.

B. Water Quality Observations and Results

- Unit was not previously sampled.
- No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
- No unusual observations
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucet(s) located in the kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – Lila Castellano.
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.29 (cold)
 - 7.27 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 238.39 μ S/cm (cold)
 - 254.64 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.12 NTU (cold)
 - 0.81 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.03 mg/L (cold)
 - 0.14 mg/L (hot)
 - Temperature -
 - 77.23°F (cold)
 - 101.82°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, miniscule specs of debris can be observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Evidence of metal shavings were present likely as a result from recent plumbing repairs/modifications.



- Figure 3. Interior view of master bathroom sink aerator. The green debris appears to be the result of oxidized copper shavings likely from the recent plumbing repairs/modifications.

C. Hot Water Heater

- 40-gallon water heater manufactured by Rheem on 09 January 2020.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater. A request for records was made by Navy to Kapilina Beach Homes prior to appointment, however, a response has not been received.
- The pipe material is copper.

D. Point-of-Use Treatment

- No water filters installed.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection except for free chlorine. Free chlorine was measured at 0.03 mg/l (cold) and 0.14 mg/l (hot) which is below the DOH suggested minimum of 0.20 mg/l.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Recommend conducting premise flushing to re-establish appropriate free chlorine levels.
- Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
- No additional actions required.

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	6200A Ibis Avenue	6200A Ibis Avenue
Field Sample ID:	A3-TW-0017107-24092-N-WQI	A3-TW-0017107-24092-N-H-WQI
Sample Date:	2024-06-24	2024-06-24
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240624-2568-454	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240624-2568-454	SDG: 240624-2568-450
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.0300-0.140	0.0300-0.140

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65184	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	52.1	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65184	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	48.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	48.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65184	
Copper	1300	1300	13.8	--
Lead	15	15	0.130 J	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65184	
1-Methylnaphthalene	None	None	0.260 U	--
2-Methylnaphthalene	None	None	0.260 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.260 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65184	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison
mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters
MPN/ml = Most Probable Number per Milliliter
µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19894
Call Date/Time	6/24/2024 11:42:48 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/26/2024 12:00:00 PM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	4915A Mokupea Place
Command	
Branch	
Property Manager	
Date of move-in	6/1/2019 12:00:00 AM
Number of adults under 65	4
Number of adults 65 and older	1
Number of school age children under 18	4
Number of infants under the age of 2	0
Number and type of pets	2 dogs
Call Center Complaint Summary / Initial Notes	5 years in the home, had a test a while ago and wants a new one. wants water 8 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom,Upstairs,Downstairs
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	
pH (standard units)	7.55
Conductivity (µS/cm)	203.18
FreeChlorine (mg/L or ppm)	0.47
Cold Temp (degrees F)	78.57
Hot water Sampling Location	
pH (standard units)	7.35
Conductivity (µS/cm)	255.65
FreeChlorine (mg/L or ppm)	0.42
Hot Temp (degrees F)	91.48
Water Quality Notes	Unit was previously sampled on 17 June 2022. Traces of Chromium, Copper, Barium, Bromoform, and Selenium found. All results were reported under their respective screening levels. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0.19 NTU, (hot): 0.39 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris was observed.

downstairs hallway bathroom sink aerator: Upon visual inspection, no debris was observed.

upstairs hallway bathroom sink aerator: Upon visual inspection, no debris was observed.

40-gallon water heater manufactured by American Water Heater Co. on 23 December 2013.

Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19894
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19894

Location

First Floor - Bathroom - Sink

Title

Interior View of Downstairs Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19894

Location

Second Floor - Bathroom 1 - Sink

Title

Interior View of Upstairs Hallway Bathroom Sink Aerator



Wednesday, 26 June 2024, 1200

Zone – A3, 4915A Mokupea Place

Location Code: A3-MOKU4915A

A. Resident Demographic/ Concerns

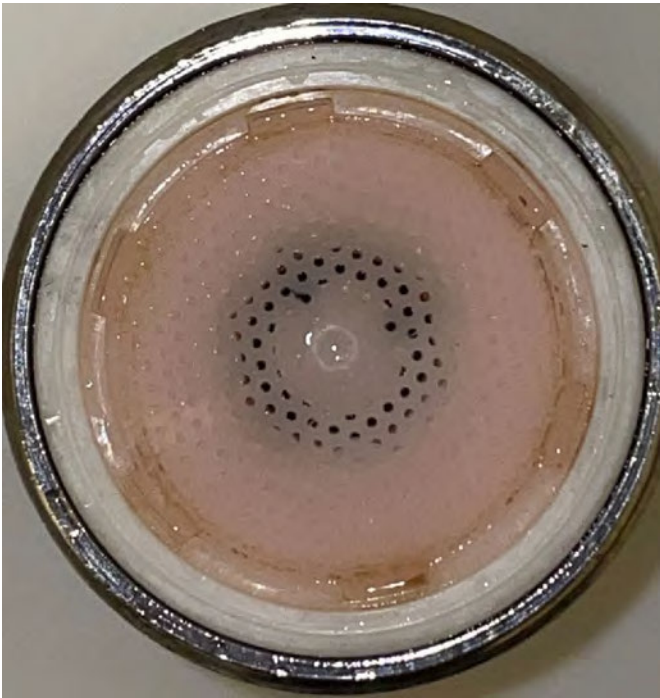
- Household consists of five (5) adults, four (4) kids, two (2) dogs.
- Resident for approximately 5 years.
- Resident had no reported health concerns.

B. Water Quality Observations and Results

- Unit was previously sampled on 17 June 2022.
 - Traces of Chromium, Copper, Barium, Bromoform, and Selenium found. All results were reported under their respective screening levels.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located upstairs and downstairs hallway bathroom sinks for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – Lila Castellano.
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.55 (cold)
 - 7.35 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 203.18 μ S/cm (cold)
 - 255.65 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.19 NTU (cold)
 - 0.39 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.47 mg/L (cold)
 - 0.42 mg/L (hot)
 - Temperature -
 - 78.57 °F (cold)
 - 91.48 °F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of downstairs hallway bathroom sink aerator. Upon visual inspection, no debris was observed.



- Figure 3. Interior view of upstairs hallway bathroom sink aerator. Upon visual inspection, no debris was observed.
- C. Hot Water Heater
- 40-gallon water heater manufactured by American Water Heater Co. on 23 December 2013.
 - Visual observation of the water heater to be in good condition with no signs of external corrosion.
 - No visible maintenance records found on the water heater.
 - The pipe material is copper.
- D. Point-of-Use Treatment
- No water filters installed.
- E. Overall Assessment
- Water Heater thermostat was set to below 100 °F. Resident stated that this was due to it being set on a timer and this was preferred.
 - No other unusual observations.
 - Water quality field parameters were within recommended limits at the time of inspection.
 - EDWM analytical results will determine if drinking water is in compliance with the applicable standards.
- F. Recommendations
- Follow up with EDWM water quality results when available.
 - Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
 - No additional actions required.

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	4915A Mokupea Place	4915A Mokupea Place
Field Sample ID:	A3-TW-0016657-24092-N-WQI	A3-TW-0016657-24092-N-H-WQI
Sample Date:	2024-06-26	2024-06-26
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240626-2568-482	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240626-2568-482	SDG: 240626-2568-482
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	6.00	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.420-0.470	0.420-0.470

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	48.4	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
Copper	1300	1300	4.20	--
Lead	15	15	0.130 U	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison
mg/L = Milligrams per Liter

MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19892
Call Date/Time	6/24/2024 11:39:04 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/26/2024 10:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	4976A Kela Place
Command	
Branch	
Property Manager	
Date of move-in	6/1/2024 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	2
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	cloudy water on hot and cold side. Says son has an upset stomach if he drinks the water when he's showering. She has not witnessed it. They don't drink or use tap water for brushing teeth. Moved in October. says she has seen a sheen from time to time when using measuring cups for baking. Asked specific questions(does it separate, ever time you fill it, after it has sat?) but she couldn't answer them. wants water, 4 in the home. Notes from site visit: Resident reports children experience sore throats and mild fever after consuming tap water and after showering.

Call Center - WQI Checklist

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	4/1/2024 12:00:00 AM
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	Cloudy / Foamy / Milky, Sheen Resident reported that water from their kitchen sink has a cloudy appearance, which began approximately 2-3 months prior. Resident stated that the cloudy appearance was observed in both the cold and hot water at the kitchen sink only. Water has sheen from time to time while baking.
Floating Particles	None None reported
Taste	None None reported
Odor	None None reported
Staining	None None reported
Scaling (visible surface buildup)	No

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None Son has upset stomach after ingesting water while in shower (comment during initial call)
Headache	Children Fever
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	Children The resident reported that their children experienced sore throats and mild fever after consuming tap water and after showering.

In-Person Site Visit

Call Center - WQI Checklist**General Issue Information**

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	Continuously
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None
	None reported

Water Quality Concerns

Cold water Sampling Location	Other
pH (standard units)	7.69
Conductivity (µS/cm)	203.13
FreeChlorine (mg/L or ppm)	0.43
Cold Temp (degrees F)	78.81
Hot water Sampling Location	Other
pH (standard units)	7.29
Conductivity (µS/cm)	269.69
FreeChlorine (mg/L or ppm)	0.50
Hot Temp (degrees F)	107.31
Water Quality Notes	Other: 2nd floor hallway bathroom Unit was previously sampled on 27 January 2023. Traces of Benzo(a)pyrene, Chromium, Copper, Lead, Barium, Bromoform, and Dibromochloromethane found. All results were reported under their respective screening levels. No sheen, particles, discoloration, or odors observed in hot or cold water. Cloudiness was observed in hot water at all fixtures/faucets but they appeared to be air bubbles, as they dissipated after one and a half (1.5) minutes. No cloudiness was observed in the cold water. No unusual observations. TURB (cold): 0.34 NTU, (hot): 0.27 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Call Center - WQI Checklist**Water Fixtures**

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Looks new / clean
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Other Concerns

Water Pressure
Hot Water Temperature
Cross-Connection
Irrigation

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.
Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
The resident was informed to seek medical attention to determine the cause experienced sickness.
No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris was observed.

hallway bathroom sink aerator: Upon visual inspection, no debris was observed.

master bathroom sink aerator: Upon visual inspection, no debris was observed.

40-gallon water heater manufactured by American Water Heater Co. on 9 December 2013. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19892
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19892
Location	First Floor - Bathroom - Sink
Title	Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19892

Location

First Floor - Bathroom - Sink

Title

Interior View of Master Bedroom Bathroom Sink Aerator



Wednesday, 26 June 2024, 10:00

Zone – A3, 4976A Kela Place

Location Code: A3-KELA4976A

A. Resident Demographic/ Concerns

- Household consists of two (2) adults and two (2) children.
- Resident for approximately one (1) year.
- Resident reported that water from their kitchen sink has a cloudy appearance, which began approximately 2-3 months prior. Resident stated that the cloudy appearance was observed in both the cold and hot water at the kitchen sink only.
- The resident reported that their children experienced sore throats and mild fever after consuming tap water and after showering.

B. Water Quality Observations and Results

- Unit was previously sampled on 27 January 2023.
 - Traces of Benzo(a)pyrene, Chromium, Copper, Lead, Barium, Bromoform, and Dibromochloromethane found. All results were reported under their respective screening levels.
 - No sheen, particles, discoloration, or odors observed in hot or cold water. Cloudiness was observed in hot water at all fixtures/faucets but they appeared to be air bubbles, as they dissipated after one and a half (1.5) minutes. No cloudiness was observed in the cold water.
 - No unusual observations
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located in the kitchen and upstairs master bathroom for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.69 (cold)
 - 7.29 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 203.13 μ S/cm (cold)
 - 269.69 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.34 NTU (cold)
 - 0.27 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.43 mg/L (cold)
 - 0.50 mg/L (hot)

- Temperature -
 - 78.81°F (cold)
 - 107.31°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Upon visual inspection, no debris was observed.



Figure 3. Interior view of master bathroom sink aerator. Upon visual inspection, no debris was observed.

C. Hot Water Heater

- 40-gallon water heater manufactured by American Water Heater Co. on 9 December 2013.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

No water filters installed.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

Appendix E. EDWM Quarter 1 WQAT Summary Tech Memos/Checklists

- The resident was informed to seek medical attention to determine the cause experienced sickness.
No additional actions required.

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	4976A Kela Place	4976A Kela Place
Field Sample ID:	A3-TW-0016848-24092-N-WQI	A3-TW-0016848-24092-N-H-WQI
Sample Date:	2024-06-26	2024-06-26
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240626-2568-481	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240626-2568-481	SDG: 240626-2568-481
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.430-0.500	0.430-0.500

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	50.7	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
Copper	1300	1300	6.10	--
Lead	15	15	0.130 U	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65270	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison
mg/L = Milligrams per Liter

MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters

µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19693
Call Date/Time	6/17/2024 9:10:07 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/26/2024 9:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5777A Erne Avenue
Command	
Branch	
Property Manager	
Date of move-in	1/1/2022 12:00:00 AM
Number of adults under 65	3
Number of adults 65 and older	0
Number of school age children under 18	1
Number of infants under the age of 2	0
Number and type of pets	3 cats and 1 dog
Call Center Complaint Summary / Initial Notes	moved in in January 22, December 22 had some skin issues but never called. son developed eczema. there are not any issues now they just want a test done. wants water. 4 in the home.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults,Children Resident reported experiencing skin issues in December 2023. Their child also developed skin issues, such as rashes, throughout their body. The doctor has diagnosed the skin condition as vitiligo but did not confirm any diagnosis regarding their child.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.30
Conductivity (µS/cm)	259.73
FreeChlorine (mg/L or ppm)	0.52
Cold Temp (degrees F)	76.75
Hot water Sampling Location	Other
pH (standard units)	7.41
Conductivity (µS/cm)	278.59
FreeChlorine (mg/L or ppm)	0.30
Hot Temp (degrees F)	127.33
Water Quality Notes	Other: upper-level hallway bathroom. Unit was not previously sampled. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0.35 NTU TURB (hot): 0.31 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement	No
Fixture Replacement	No
Navy to follow-up	No
Other	Yes

Follow up with EDWM water quality results when available.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

The resident was informed to continue seeking medical attention if skin condition persists/worsens.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris was observed.

hallway bathroom sink aerator: Evidence of black and brittle debris present upon inspection.

kitchen sink aerator: Upon visual inspection, no debris was observed.

40-gallon water heater manufactured by Rheem on April 2018. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19693
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19693

Location

First Floor - Bathroom - Sink

Title

Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19693
Location	Other
Title	Interior View Kitchen Sink Aerator



Wednesday, 26 June 2024, 0900

Zone – A3, 5777A Erne Ave

Location Code: A3-ERNE5777A

A. Resident Demographic/ Concerns

- Household consists of three (3) adults, one (1) child, three (3) cats, and one (1) dog.
- Resident for approximately two (2) years.
- Resident reported experiencing skin issues in December 2023. Additionally, resident stated that their child also developed skin issues, such as rashes, throughout their body. The resident stated that a doctor has diagnosed the skin condition as vitiligo but did not confirm any diagnosis regarding their child. The resident wanted to have their water tested to rule out the water as a potential cause.

B. Water Quality Observations and Results

- Unit was not previously sampled.
- No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
- No unusual observations
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located in the master bathroom sink/shower fixture, for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6)
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.30 (cold)
 - 7.41 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 259.73 μ S/cm (cold)
 - 278.59 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.35 NTU (cold)
 - 0.31 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.52 mg/L (cold)
 - 0.30 mg/L (hot)
 - Temperature -
 - 76.75°F (cold)
 - 127.33°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Evidence of black and brittle debris present upon inspection.



- Figure 3. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.

C. Hot Water Heater

- 40-gallon water heater manufactured by Rheem on April 2018.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

- No water filters installed.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.
- Further discussion regarding resident's skin issues were diagnosed as vitiligo, a chronic autoimmune disorder.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
- The resident was informed to continue seeking medical attention if skin condition persists/worsens.
- No additional actions required.

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5777A Erne Avenue	5777A Erne Avenue
Field Sample ID:	A3-TW-0017013-24092-N-WQI	A3-TW-0017013-24092-N-H-WQI
Sample Date:	2024-06-26	2024-06-26
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240626-2568-479	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240626-2568-479	SDG: 240626-2568-479
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.300-0.520	0.300-0.520

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65269	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	50.0	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65269	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	48.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	48.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65269	
METAL (µg/L)				

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Copper	1300	1300	12.5	--
Lead	15	15	0.150 J	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65269	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65269	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter
MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters
µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19891
Call Date/Time	6/24/2024 11:37:01 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/27/2024 10:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	6164 Heron Avenue
Command	
Branch	
Property Manager	
Date of move-in	12/1/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	4
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	said she was told/saw a post that the water was unsafe, has small rash on arms but this wasn't a complaint until i asked if she was experiencing any thing, in the home since December. wants water 6 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	No
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	No
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	Yes
Skin	Adults Resident had reported experiencing skin issues, such as, rashes since moving into the residence. No medical attention sought.
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Kitchen
pH (standard units)	7.29
Conductivity (µS/cm)	302.62
FreeChlorine (mg/L or ppm)	0.53
Cold Temp (degrees F)	85.53
Hot water Sampling Location	Kitchen
pH (standard units)	7.34
Conductivity (µS/cm)	331.84
FreeChlorine (mg/L or ppm)	0.13
Hot Temp (degrees F)	129.82
Water Quality Notes	Unit was previously sampled on 27 January 2023. Traces of Benzo(a)pyrene, Chromium, Copper, Lead, Barium, Bromoform, and Dibromochloromethane found. All results were reported under their respective screening levels. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations TURB (cold): 0.27 NTU TURB (hot): 0.73 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

The resident was informed to continue seeking medical attention if skin condition persists/worsens.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris was observed.

hallway bathroom sink aerator: Upon visual inspection, no debris was observed.

master bathroom sink aerator: Evidence of black and rubber-like debris was observed, likely associated with the recent renovations (water heater replacement, etc.).

40-gallon water heater manufactured by Rheem in 30 March 2023. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Call Center - WQI Checklist

Photos

Ticket Number	19891
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19891

Location

First Floor - Bathroom - Sink

Title

Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19891
Location	Other
Title	Interior View of Master Bathroom Sink Aerator



Thursday, 27 June 2024, 1000

Report revised to correct the location of where field testing results were taken.

Zone – A3, 6164 Heron Ave

Location Code: A3-HERO6164

A. Resident Demographic/ Concerns

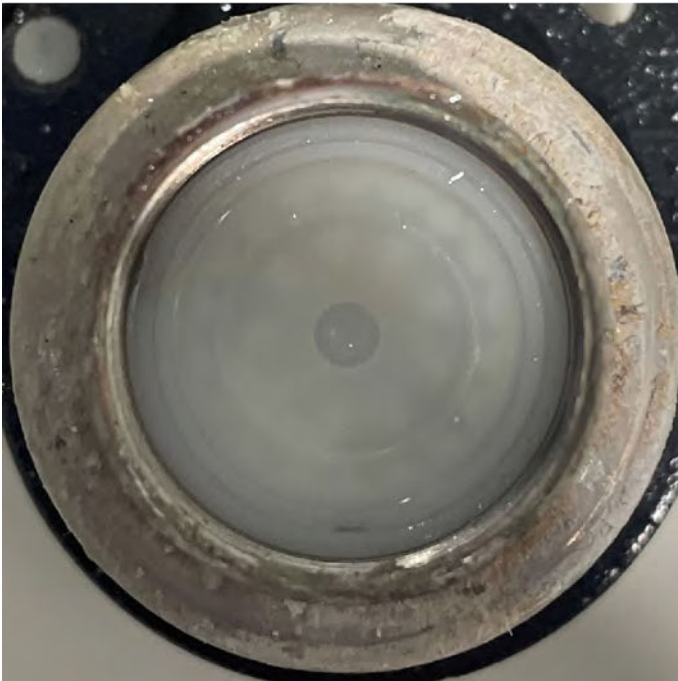
- Household consists of two (2) adults, four (4) children.
- Resident since December 2023
- Resident had reported experiencing skin issues, such as, rashes since moving into the residence. The resident was asked if they had consulted a medical professional to which they confirmed that no medical attention was sought. The resident wanted to have their water tested to rule out the water as a potential cause.

B. Water Quality Observations and Results

- Unit was not previously sampled.
- No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
- No unusual observations
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located in the master bathroom sink/shower fixture, for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – Lila Castellano.
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the kitchen sink
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.29 (cold)
 - 7.34 (hot)
 - Conductivity - (Acceptable Range 0 to 800 $\mu\text{S}/\text{cm}$)
 - 302.62 $\mu\text{S}/\text{cm}$ (cold)
 - 331.84 $\mu\text{S}/\text{cm}$ (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.27 NTU (cold)
 - 0.73 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.53 mg/L (cold)
 - 0.13 mg/L (hot)
 - Temperature -
 - 85.53°F (cold)
 - 129.82°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Upon visual inspection, no debris was observed.



- Figure 3. Interior view of master bathroom sink aerator. Evidence of black and rubber-like debris was observed, likely associated with the recent renovations (water heater replacement, etc.).
- C. Hot Water Heater
- 40-gallon water heater manufactured by Rheem in 30 March 2023.
 - Visual observation of the water heater to be in good condition with no signs of external corrosion.
 - No visible maintenance records found on the water heater.
 - The pipe material is copper.
- D. Point-of-Use Treatment
- No water filters installed.
- E. Overall Assessment
- No unusual observations.
 - Water quality field parameters were within recommended limits at the time of inspection.
 - EDWM analytical results will determine if drinking water is in compliance with the applicable standards.
- F. Recommendations
- Follow up with EDWM water quality results when available.
 - Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
 - The resident was informed to continue seeking medical attention if skin condition persists/worsens.
 - No additional actions required.

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	6164 Heron Avenue	6164 Heron Avenue
Field Sample ID:	A3-TW-0016590-24092-N-WQI	A3-TW-0016590-24092-N-H-WQI
Sample Date:	2024-06-27	2024-06-27
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240627-2568-491	
BAC (CFU/100ml)				
Coliform	None	None	1.00	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240627-2568-491	SDG: 240627-2568-491
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	287	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.130-0.530	0.130-0.530

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65316	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	51.1	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65316	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	48.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	48.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

Table X-X
EDWM A3 Zone Residential Sampling
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65316	
Copper	1300	1300	14.8	--
Lead	15	15	0.250 J	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65316	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65316	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison
mg/L = Milligrams per Liter

CFU/100ml = Colony Forming Units per 100 Milliliters

MPN/ml = Most Probable Number per Milliliter

µg/L = Micrograms per Liter

Call Center - WQI Checklist

Complaint Ticket

Assign Call Ticket Number	1-19896
Call Date/Time	6/24/2024 11:46:19 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/27/2024 9:00:00 AM

Call Center Information

Caller/Resident Information

Name	(b) (6)
Address	6466 102nd Street
Command	
Branch	
Property Manager	
Date of move-in	12/1/2023 12:00:00 AM
Number of adults under 65	3
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	0
Call Center Complaint Summary / Initial Notes	In the home since december only thing they have noticed is a slight chlorine smell in the water off and on, saw it posted to get a free test and was curious. I walked him through how to see the past tests done on the safe waters website and he still wanted to have a test done. wants water. 3 in the home.

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	None
	None reported
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	Chlorine
	Chlorine smell off and on
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Kitchen,Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.39
Conductivity (µS/cm)	228.74
FreeChlorine (mg/L or ppm)	0.37
Cold Temp (degrees F)	82.28
Hot water Sampling Location	Other
pH (standard units)	7.36
Conductivity (µS/cm)	244.20
FreeChlorine (mg/L or ppm)	0.61
Hot Temp (degrees F)	116.86
Water Quality Notes	Other: upper-level hallway bathroom. Unit was previously sampled on 18 July 2022. • Traces of Chromium, Copper, Barium, Bromoform, Dibromochloromethane, and Selenium found. All results were reported under their respective screening levels. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 58.40 NTU TURB (hot): 0.40 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris was observed.

hallway bathroom sink aerator: Upon visual inspection, no debris was observed.

40-gallon water heater manufactured by Rheem on 26 May 2015. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

Cold water turbidity had a measurement of 58.40 NTU while hot water turbidity measured at 0.40, this disparity appeared to be the result of an equipment failure. No sediment or particulates were observed in the cold-water during inspection. Further, Water quality field parameters were within recommended limits at the time of inspection.

Call Center - WQI Checklist

Photos

Ticket Number	19896
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19896

Location

First Floor - Bathroom - Sink

Title

Interior View of Hallway Bathroom Sink Aerator



Thursday, 27 June 2024, 0900

Zone – A3, 6466 102nd St
Location Code: A3-102S6466

A. Resident Demographic/ Concerns

- Household consists of three (3) adults.
- Resident since December 2023.
- Resident had no reported health concerns. The resident scheduled this testing after hearing about it on social media, Facebook.

B. Water Quality **Observations and Results**

- Unit was previously sampled on 18 July 2022.
 - Traces of Chromium, Copper, Barium, Bromoform, Dibromochloromethane, and Selenium found. All results were reported under their respective screening levels.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located on the hallway bathroom and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6).
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.39 (cold)
 - 7.36 (hot)
 - Conductivity - (Acceptable Range 0 to 800 µS/cm)
 - 228.74 µS/cm (cold)
 - 244.20 µS/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 58.40 NTU (cold) – See Section E.
 - 0.40 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.37 mg/L (cold)
 - 0.61 mg/L (hot)
 - Temperature -
 - 82.28°F (cold)
 - 116.86°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Upon visual inspection, no debris was observed.

C. Hot Water Heater

- 40-gallon water heater manufactured by Rheem on 26 May 2015.
- Visual observation of the water heater to be in good condition with no signs of external corrosion.
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

No water filters installed.

E. Overall Assessment

- No unusual observations.
- Cold water turbidity had a measurement of 58.40 NTU while hot water turbidity measured at 0.40 NTU. The cold-water reading is greater than the acceptable maximum turbidity range of 1 NTU. Since no cloudiness was observed in the cold water, and the subsequent hot water reading was ready was within the acceptable range, it is believed that the recording was made in error. Further, Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
- No additional actions required.

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	6466 102nd Street	6466 102nd Street
Field Sample ID:	A3-TW-0016093-24092-N-WQI	A3-TW-0016093-24092-N-H-WQI
Sample Date:	2024-06-27	2024-06-27
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240627-2568-490	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240627-2568-490	SDG: 240627-2568-490
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.370-0.610	0.370-0.610

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	51.4	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
METAL (µg/L)				

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Copper	1300	1300	9.60	--
Lead	15	15	0.160 J	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
1-Methylnaphthalene	None	None	0.260 U	--
2-Methylnaphthalene	None	None	0.260 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.260 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter
MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters
µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19906
Call Date/Time	6/25/2024 7:03:56 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/28/2024 10:30:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5618 Dovekie Avenue
Command	
Branch	
Property Manager	
Date of move-in	6/13/2024 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	1
Number of infants under the age of 2	0
Number and type of pets	4 pets
Call Center Complaint Summary / Initial Notes	only a week in the home and cautious about the water wants a test. no issues with the water but have not been drinking or cooking with it, only bathing and doing laundry. wants water, 3 in the home

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	Other
	Viscous
Floating Particles	None
	None reported
Taste	None
	None reported
Odor	None
	None reported
Staining	None
	None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist

Health Concerns

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit

General Issue Information

Does the water problem occur at some or all inside taps?	Bathroom
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	I don't know
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.10
Conductivity (µS/cm)	264.29
FreeChlorine (mg/L or ppm)	0.60
Cold Temp (degrees F)	83.92
Hot water Sampling Location	Other
pH (standard units)	7.18
Conductivity (µS/cm)	276.65
FreeChlorine (mg/L or ppm)	0.57
Hot Temp (degrees F)	107.95
Water Quality Notes	Other: Upper-level hallway bathroom. Unit was previously sampled on 27 April 2022. Traces of Chromium, Copper, Lead, Barium, and Selenium found. All results were reported under their respective screening levels. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0.65 NTU TURB (hot): 0.24 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Looks new / clean
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Looks new / clean
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.

Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.

No additional actions required.

Other Site Visit Notes

kitchen sink aerator: Upon visual inspection, no debris was observed.

hallway bathroom sink aerator: Upon visual inspection, no debris was observed.

master bathroom sink aerator: Upon visual inspection, no debris was observed.

40-gallon water heater manufactured by Bradford White Corp. on March 29, 2006. Visual observation of the water heater to be in good condition with no signs of external corrosion. No visible maintenance records found on the water heater. The pipe material is copper.

The "viscosity" of hot and cold water was closely monitored, and no unusual characteristics were observed.

Call Center - WQI Checklist

Photos

Ticket Number	19906
Location	First Floor - Bathroom - Sink
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19906

Location

Second Floor - Bathroom 1 - Sink

Title

Interior View of Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number	19906
Location	Other
Title	kitchen sink aerator



Call Center - WQI Checklist

Photos

Ticket Number	19906
Location	Second Floor - Bathroom 1 - Sink
Title	master bathroom sink aerator



Friday, 28 June 2024, 1030

Zone – A3, 5618 Dovekie

Location Code: A3-DOVE5618

A. Resident Demographic/ Concerns

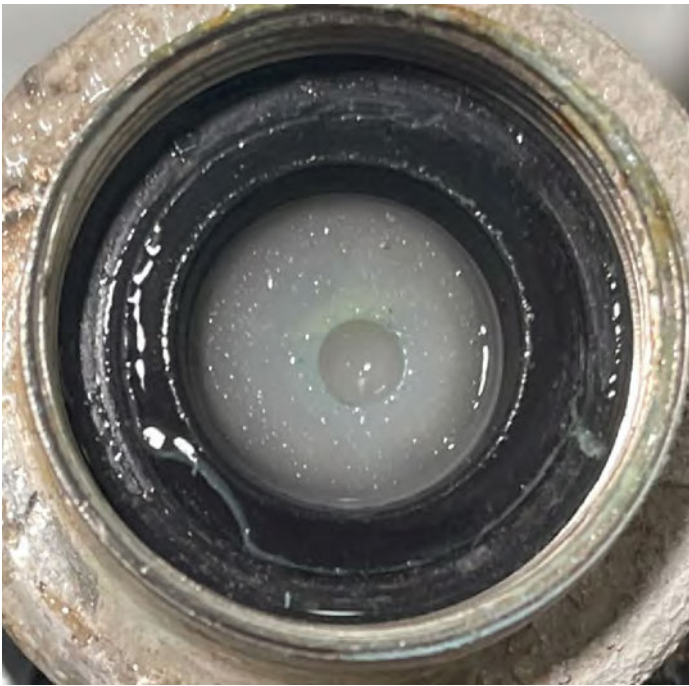
- Household consists of two (2) adults, one (1), four (4) pets.
- Resident since 13 June 2024.
- Resident had concerns about the “viscosity” of cold and hot water from their master bathroom sink. In addition, the resident had been recently informed about the Red Hill release which increased their concerns of their water quality. The resident did not report additional characteristics, such as odor, appearance, etc.

B. Water Quality Observations and Results

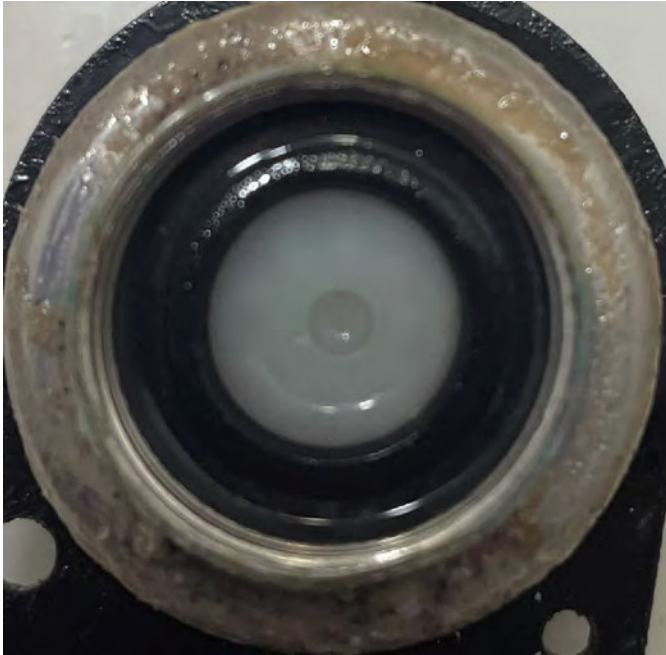
- Unit was previously sampled on 27 April 2022.
 - Traces of Chromium, Copper, Lead, Barium, and Selenium found. All results were reported under their respective screening levels.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located on the hallway bathroom, master bathroom sink/shower fixture for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6).
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.10 (cold)
 - 7.18 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 264.29 μ S/cm (cold)
 - 276.65 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.65 NTU (cold)
 - 0.24 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.60 mg/L (cold)
 - 0.57 mg/L (hot)
 - Temperature -
 - 83.92°F (cold)
 - 107.95°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of hallway bathroom sink aerator. Upon visual inspection, no debris was observed.



- Figure 3. Interior view of master bathroom sink aerator. Upon visual inspection, no debris was observed.
- C. Hot Water Heater
- 40-gallon water heater manufactured by Bradford White Corp. on March 29, 2006.
 - Visual observation of the water heater to be in good condition with no signs of external corrosion.
 - No visible maintenance records found on the water heater.
 - The pipe material is copper.
- D. Point-of-Use Treatment
- No water filters installed.
- E. Overall Assessment
- No unusual observations.
 - The “viscosity” of hot and cold water was closely monitored, and no unusual characteristics were observed.
 - Water quality field parameters were within recommended limits at the time of inspection.
 - EDWM analytical results will determine if drinking water is in compliance with the applicable standards.
- F. Recommendations
- Follow up with EDWM water quality results when available.
 - Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
 - No additional actions required.

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	6466 102nd Street	6466 102nd Street
Field Sample ID:	A3-TW-0016093-24092-N-WQI	A3-TW-0016093-24092-N-H-WQI
Sample Date:	2024-06-27	2024-06-27
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240627-2568-490	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240627-2568-490	SDG: 240627-2568-490
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.370-0.610	0.370-0.610

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	51.4	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
METAL (µg/L)				

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

Copper	1300	1300	9.60	--
Lead	15	15	0.160 J	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
1-Methylnaphthalene	None	None	0.260 U	--
2-Methylnaphthalene	None	None	0.260 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.260 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65315	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:
-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison

mg/L = Milligrams per Liter
MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters
µg/L = Micrograms per Liter

Call Center - WQI Checklist**Complaint Ticket**

Assign Call Ticket Number	1-19893
Call Date/Time	6/24/2024 11:41:27 AM
Call Center Operator	(b) (6)
Location Type	Residence
Scheduled Visit (Date/Time)	6/28/2024 9:00:00 AM

Call Center Information**Caller/Resident Information**

Name	(b) (6)
Address	5561 Bennion Drive
Command	
Branch	
Property Manager	
Date of move-in	12/1/2023 12:00:00 AM
Number of adults under 65	2
Number of adults 65 and older	0
Number of school age children under 18	0
Number of infants under the age of 2	0
Number and type of pets	1 dog
Call Center Complaint Summary / Initial Notes	in the home since SEP 2021, before going on a 3 week trip to the main land they noticed a strong chlorine/chemical smell in the water, and it didnt go away when they got back. wants water 2and 1 pet

Water Complaint Related Questions

Are you currently experiencing any issue or concern with your water?	Yes
When did you first notice the issue?	10/1/2023 12:00:00 AM
Is this an ongoing issue/concern, or does it only happen at certain times?	Ongoing
Do you see any issues with the appearance or odor the water in your home?	Yes
Color or Appearance of Water	None None reported
Floating Particles	None None reported
Taste	None None reported
Odor	Chemical / Medicinal,Chlorine Resident reported a strong chlorine/chemical odor coming from the cold and hot water in the kitchen sink.
Staining	None None reported
Scaling (visible surface buildup)	No

Call Center - WQI Checklist**Health Concerns**

Is anyone in your home experiencing any health concerns because of drinking or exposure to the water?	No
Skin	None None reported
Respiratory	None None reported
Gastrointestinal	None None reported
Headache	None None reported
Dizziness	None None reported
Cough	None None reported
Vision	None None reported
Other	None None reported

In-Person Site Visit**General Issue Information**

Does the water problem occur at some or all inside taps?	Kitchen
Are your neighbors experiencing the same issue?	I don't know
Does it occur with just the cold water, the hot water, or both?	Both hot & cold water
Does it occur only when you first turn on the water or does it occur continuously?	Continuously
Are you aware of any recent nearby construction or maintenance activities?	I don't know

Premise Plumbing History

Premise Plumbing History	None None reported
--------------------------	-----------------------

Call Center - WQI Checklist**Water Quality Concerns**

Cold water Sampling Location	Other
pH (standard units)	7.17
Conductivity (µS/cm)	248.12
FreeChlorine (mg/L or ppm)	0.29
Cold Temp (degrees F)	78.76
Hot water Sampling Location	Other
pH (standard units)	7.24
Conductivity (µS/cm)	281.19
FreeChlorine (mg/L or ppm)	0.32
Hot Temp (degrees F)	101.94
Water Quality Notes	Other: Upper-level hallway bathroom. Unit was previously sampled on 11 August 2023. Traces of Chromium, Copper, Lead, Barium, Bromoform, Dibromochloromethane, Selenium, and Petroleum Hydrocarbons (as Diesel) found. All results were reported under their respective screening levels. No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water. No unusual observations. TURB (cold): 0.25 NTU TURB (hot): 0.18 NTU

Filtration Systems

Do you have a whole home water filtration system?	No
Do you have point-of-use filters?	No
Kitchen sink	
Refrigerator	
Bathroom - first floor	
Bathroom - second floor	
Bathroom - second floor	
Bathroom - other	
Who installed the water filter	

Water Fixtures

Staining or Scale visible buildup on water fixtures	False
Kitchen sink - Specific inspection point	Sink faucet
Kitchen sink - Condition of aerator	Scaling / Debris / Particulates present
Refrigerator - Specific inspection point	
Refrigerator - Condition of aerator	
Bathroom - first floor - Specific inspection point	Sink faucet
Bathroom - first floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - second floor - Specific inspection point	
Bathroom - second floor - Condition of aerator	
Bathroom - second floor - Specific inspection point	Sink faucet
Bathroom - second floor - Condition of aerator	Scaling / Debris / Particulates present
Bathroom - other - Specific inspection point	
Bathroom - other - Condition of aerator	

Call Center - WQI Checklist**Other Concerns**

Water Pressure

Hot Water Temperature

Cross-Connection

Irrigation

Summary and Recommendations

Water Heater Replacement No

Fixture Replacement No

Navy to follow-up No

Other Yes

Follow up with EDWM water quality results when available.
No additional actions required.

Other Site Visit Notes

Kitchen sink aerator: Upon visual inspection, flakes of debris were observed, likely the result of previous hot water heater flushing.

Downstairs hallway bathroom sink aerator: Upon visual inspection, miniscule amounts of debris were observed.

Upstairs master bathroom sink aerator: Upon visual inspection, additional debris were observed.

40-gallon water heater manufactured by American Water Heater Co. on August 2015. Visual observation of the water heater to be in good condition with little signs of external corrosion. No visible maintenance records found on the water heater. Maintenance records received from Kapilina Housing indicate that this unit was flushed on 28 February 2024. The pipe material is copper.

This odor appeared for two days within the last week. The resident described this odor to be a "chlorinous" nature. At the time of inspection, no odor could be detected nor any other unusual observations.

Call Center - WQI Checklist

Photos

Ticket Number	19893
Location	Other
Title	Interior View of Kitchen Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19893

Location

First Floor - Bathroom - Sink

Title

Interior View of Downstairs Hallway Bathroom Sink Aerator



Call Center - WQI Checklist

Photos

Ticket Number

19893

Location

Second Floor - Bathroom 1 - Sink

Title

Interior View Upstairs Master Bathroom Sink Aerator



Friday, 28 June 2024, 0900

Zone – F1, 5561 Bennion Drive

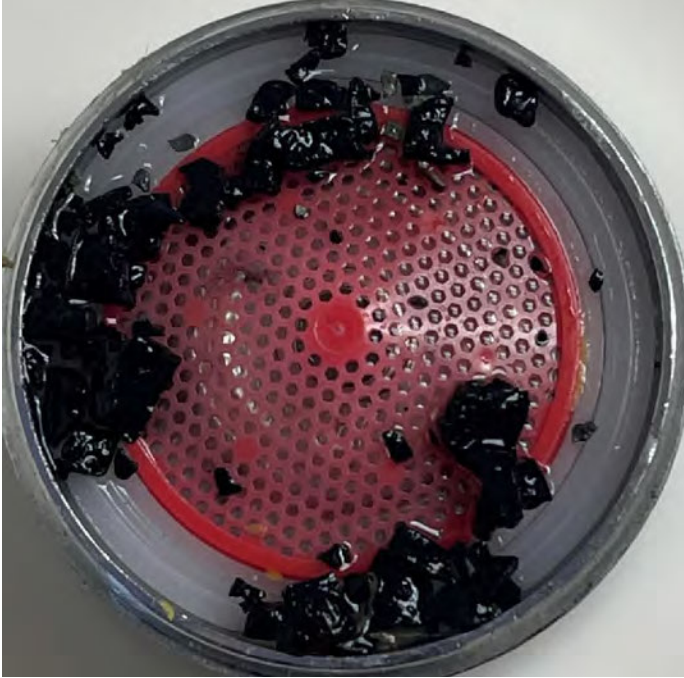
Location Code: F1-BENN5561

A. Resident Demographic/ Concerns

- Household consists of two (2) adults and one (1) dog.
- Resident for since December 2023.
- Resident reported an odor coming from the cold and hot water in the kitchen sink.

B. Water Quality Observations and Results

- Unit was previously sampled on 11 August 2023.
 - Traces of Chromium, Copper, Lead, Barium, Bromoform, Dibromochloromethane, Selenium, and Petroleum Hydrocarbons (as Diesel) found. All results were reported under their respective screening levels.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located on the upstairs master bathroom sink/shower fixture, downstairs hallway bathroom and kitchen for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – (b) (6).
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.17 (cold)
 - 7.24 (hot)
 - Conductivity - (Acceptable Range 0 to 800 µS/cm)
 - 248.12 µS/cm (cold)
 - 281.19 µS/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.25 NTU (cold)
 - 0.18 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.29 mg/L (cold)
 - 0.32 mg/L (hot)
 - Temperature -
 - 78.76°F (cold)
 - 101.94°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, flakes of debris were observed, likely the result of previous hot water heater flushing.



- Figure 2. Interior view of downstairs hallway bathroom sink aerator. Upon visual inspection, miniscule amounts of debris were observed.



- Figure 3. Interior view of upstairs master bathroom sink aerator. Upon visual inspection, additional debris were observed.

C. Hot Water Heater

- 40-gallon water heater manufactured by American Water Heater Co. on August 2015.
- Visual observation of the water heater to be in good condition with little signs of external corrosion.
- No visible maintenance records found on the water heater. Maintenance records received from Kapilina Housing indicate that this unit was flushed on 28 February 2024.
- The pipe material is copper.

D. Point-of-Use Treatment

No water filters installed.

E. Overall Assessment

- Upon further discussion with the resident regarding the odor, it was found that this odor appeared for two days within the last week. The resident described this odor to be a "chlorinous" nature.
- The was debris found in all of the inspected aerators. The debris appeared to be the result of previous flushing of the hot water heater.
- At the time of inspection, no odor could be detected nor any other unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- No additional actions required.

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results
Drinking Water Sampling, JBPHH, Oahu, Hawaii

Residence:	5561 Bennion Drive	5561 Bennion Drive
Field Sample ID:	F1-TW-0008603-24092-N-WQI	F1-TW-0008603-24092-N-H-WQI
Sample Date:	2024-06-28	2024-06-28
Sample Type:	N	N

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240628-2568-505	
BAC (CFU/100ml)				
Coliform	None	None	0.00 U	--
E. coli	None	None	0.00 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: 240628-2568-505	SDG: 240628-2568-505
BAC (MPN/ml)				
Heterotrophic Plate Count	None	None	2.00 U	2.00 U

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels		
Field Tests (mg/L)				
Free Chlorine	None	4	0.290-0.320	0.290-0.320

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65348	
GENCHEM (mg/L)				
Alkalinity, Total (as CaCO3)	None	None	58.6	--
Total Organic Carbon	None	None	0.200 U	--

	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65348	
HC (µg/L)				
Petroleum Hydrocarbons (as Diesel)	None	None	47.0 U	--
Petroleum Hydrocarbons (as Gasoline)	None	None	50.0 U	--
Petroleum Hydrocarbons (as Motor Oil)	None	None	47.0 U	--
Petroleum Hydrocarbons, Total	None	None	ND	--

Table X-X
Non-EDWM Water Quality Investigation (WQI) Requested Samples (via EOC)
Chemistry Results

Drinking Water Sampling, JBPHH, Oahu, Hawaii

METAL (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65348	
Copper	1300	1300	32.1	--
Lead	15	15	0.130 U	--
Mercury	2	2	0.0250 U	--

SVOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65348	
1-Methylnaphthalene	None	None	0.250 U	--
2-Methylnaphthalene	None	None	0.250 U	--
Benzo(a)pyrene	0.2	0.2	0.0100 U	--
Naphthalene	None	None	0.250 U	--

VOC (µg/L)	DOH Safe Drinking Water Branch (SDWB) Regulatory Constituents	Environmental Protection Agency Maximum Contaminant Levels	SDG: DA65348	
1,2,4-Trimethylbenzene	None	None	0.260 U	--
1,3,5-Trimethylbenzene	None	None	0.250 U	--
Benzene	5	5	0.250 U	--
Bromodichloromethane	None	None	0.250 U	--
Bromoform	None	None	0.300 U	--
Chloroform	None	None	0.250 U	--
Dibromochloromethane	None	None	0.250 U	--
Ethylbenzene	700	700	0.250 U	--
m,p-Xylene	None	None	0.400 U	--
o-Xylene	None	None	0.250 U	--
Toluene	1000	1000	0.250 U	--
Total Trihalomethanes	80	None	ND	--
Xylenes, Total	10000	10000	ND	--

Notes:

-- indicates that the sample was Not Analyzed for the analyte
Results in green font also exceed the DOH MCL
Results in blue font also exceed the EPA MCL
Results from G1/G3 sampling, where the G3 result is greater than the G1 result, have a red border and the associated G1/G3 result in parentheses for comparison
mg/L = Milligrams per Liter

MPN/ml = Most Probable Number per Milliliter
CFU/100ml = Colony Forming Units per 100 Milliliters

µg/L = Micrograms per Liter

Friday, 28 June 2024, 1230

Zone – H3, 120 Jasmine Place

Location Code: H3-JASM0120

A. Resident Demographic/ Concerns

- Household consists of two (2) adults and two (2) children.
- Resident since June 2024.
- Resident reported a strange taste from the water in their kitchen sink that occurred within the last week. Resident stated that this taste has disappeared but wanted testing for confirmation.

B. Water Quality Observations and Results

- Unit was previously sampled on 11 August 2023.
 - Traces of Copper, Lead, Barium, Bromoform, Dibromochloromethane, and Bromodichloromethane found. All results were reported under their respective screening levels.
 - No sheen, particles, discoloration, cloudiness, or odors observed in hot or cold water.
 - No unusual observations.
- Personnel on-site
 - Water Quality Action Team (WQAT) - Collected cold water samples from faucets located on the upstairs master bathroom sink/bathtub, downstairs hallway bathroom, kitchen, fridge (water dispenser) for rapid TPH test.
 - Community Public Liaison Officer (CPLO) – Lila Castellano.
 - Water Quality Investigation Water Monitoring (WQIWM) – EDWM collected hot/cold water samples from the kitchen sink.
 - Hawaii Department of Health Safe Drinking Water Branch (HDOH SDWB) – Not present.
- Results of field testing from the upper-level hallway bathroom.
 - pH – (Acceptable Range: 6.5 to 8.5)
 - 7.07 (cold)
 - 7.24 (hot)
 - Conductivity - (Acceptable Range 0 to 800 μ S/cm)
 - 265.72 μ S/cm (cold)
 - 284.98 μ S/cm (hot)
 - Turbidity - (Acceptable Range: < 1.0 NTU)
 - 0.90 NTU (cold)
 - 0.53 NTU (hot)
 - Free Chlorine - (Acceptable Range: 0.20 to 4.00 mg/L)
 - 0.36 mg/L (cold)
 - 0.30 mg/L (hot)
 - Temperature -
 - 79.02°F (cold)
 - 107.76°F (hot)



- Figure 1. Interior view of kitchen sink aerator. Upon visual inspection, no debris was observed.



- Figure 2. Interior view of downstairs hallway bathroom sink aerator. Upon visual inspection, no debris was observed.



- Figure 3. Interior view of upstairs master bathroom sink aerator. Upon visual inspection, no debris was observed.

C. Hot Water Heater

- 40-gallon water heater manufactured by Sun Earth Inc. on 24 June 2013.
- Visual observation of the water heater to be in good condition with little signs of external corrosion.
- No visible maintenance records found on the water heater.
- The pipe material is copper.

D. Point-of-Use Treatment

An Aquasana shower filter (AQ-4100), NSF 177 rated, was installed in the upstairs master bathroom. Unit is in good condition.

E. Overall Assessment

- No unusual observations.
- Water quality field parameters were within recommended limits at the time of inspection.
- EDWM analytical results will determine if drinking water is in compliance with the applicable standards.

F. Recommendations

- Follow up with EDWM water quality results when available.
- Upon receiving/reviewing the water heater maintenance records, further assessment will be provided, if applicable.
- No additional actions required.