MONTHLY PROGRESS REPORT #345
FOR DECEMBER 2025

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 and 1-2000-0014

JOINT BASE CAPE COD (JBCC)
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from 01 to 31 December 2025.

1. SUMMARY OF REMEDIATION ACTIONS

Remediation Actions (RA) Underway at Camp Edwards as of 26 December 2025:

Demolition Area 1 Comprehensive Groundwater RA

The Demolition Area 1 Comprehensive Groundwater RA consists of the removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. Extraction, treatment, and recharge (ETR) systems at Frank Perkins Road and Base Boundary include extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration gallery and injection wells to return treated water to the aquifer.

The Frank Perkins Road Treatment Facility has been optimized as part of the Environmental and System Performance Monitoring (ESPM) program at Demolition Area 1. On 31 March 2025, the flow rate at the Frank Perkins Treatment Facility was reduced from 175 gallons per minute (gpm) to 100 gpm as a result of shutting down extraction well D1-EW-501, leaving only D1-EW-4 pumping as part of the Frank Perkins Road system. Due to a vault flood on 23 May 2025, which damaged electrical and pump equipment EW-501 has been operating at 100 gpm in place of EW-4. Diagnostics are ongoing. As of 26 December 2025, over 3.185 billion gallons of water were treated and re-injected. The Frank Perkins Treatment Facility was turned off on 30 September 2025 due to the government shutdown and will remain down until further notice.

The Base Boundary Mobile Treatment Unit (MTU) continues to operate at a flow rate of 65 gpm. As of 26 December 2025, over 455.1 million gallons of water were treated and re-injected. No Base Boundary system shutdowns occurred in the reporting period.

The Leading-Edge System was turned off with regulatory approval on 19 August 2025 (formerly operated at a flow rate of 125 gpm). Over 469.4 million gallons of water were treated and re-injected since RA.

The Pew Road MTU was turned off with regulatory approval on 08 March 2021 (formerly operated at a flow rate of 65 gpm). Over 672.9 million gallons of water were treated and re-injected during the RA.

J-2 Range Groundwater RA

Northern

The J-2 Range Northern Treatment facility consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The Extraction, Treatment, and Re-infiltration system includes three extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and infiltration galleries to return treated water to the aquifer.

The Northern MTUs E and F continue to operate at a flow rate of 250 gpm. As of 26 December 2025, over 2.407 billion gallons of water have been treated and re-injected. The following MTU E and F system shutdowns occurred in the reporting period:

- 0651 on 30 December 2025 due to a broken hose. The hose was replaced and MTU E was restarted at 0853 on 30 December 2025.

The Northern Treatment Building G continues to operate at a flow rate of 225 gpm. As of 26 December 2025, over 1.859 billion gallons of water have been treated and re-injected. No MTU G system shutdowns occurred in the reporting period.

Eastern

The J-2 Range Eastern Treatment system consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETI system includes the following components: two extraction wells, an ex-situ treatment process consisting of an ion exchange (IX) resin and granular activated carbon (GAC) media to treat perchlorate and explosives compounds, and two infiltration galleries. The flow rate at MTU J was reduced from 120 gpm to 90 gpm and MTU K was turned off with regulatory approval on 28 October 2025. The J-2 Range Eastern system is running at a combined total flow rate of 340 gpm.

The MTUs H and I have been operating at a flow rate of 250 gpm. As of 26 December 2025, over 2.047 billion gallons of water have been treated and re-injected. MTUs H and I were turned off at 0650 on 19 December 2025 to prevent further damage to the system due to a broken insulator and a blown fuse caused by high winds . MTUs H and I will remain off until further notice.

MTU J has been operating at a flow rate of 90 gpm. As of 26 December 2025, over 959.2 million gallons of water have been treated and re-injected. MTU J was turned off at 0650 on 19 December 2025 to prevent further damage to the system due to a broken insulator and a blown fuse caused by high winds. MTU J will remain off until further notice.

MTU K was turned off with regulatory approval on 28 October 2025. (formerly operated at a flow rate of 125 gpm). Over 1.086 billion gallons of water were treated and re-injected during the RA.

<u>J-3 Range Groundwater RA</u>

The J-3 Range Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes four extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater and utilizes the existing Fuel Spill-12 (FS-12) injection wells to return treated water to the aquifer.

The J-3 system is currently operating at a flow rate of 255 gpm. As of 26 December 2025, over 2.032 billion gallons of water have been treated and re-injected. The following J-3 system shutdowns occurred in the reporting period:

- 0630 on 02 December 2025 due to a power outage and was restarted at 1210 on 02 December 2025

- 1401 on 24 December 2025 due to a power interruption and was restarted at 0821 on 29 December 2025.

J-1 Range Groundwater RA

Southern

The J-1 Range Southern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds. The ETR system includes one extraction well, an ex-situ treatment process to remove explosives compounds from the groundwater, and an infiltration gallery to return treated water to the aquifer.

The Southern MTU has been optimized as part of the ESPM program at J-1 Range Southern. The on-base extraction well J1SEW0001 was turned off with regulatory approval on 28 February 2017 (formerly operated at a flow of 35 gpm), and flow was increased from 90 gpm to 125 gpm at the Leading-Edge extraction well J1SEW0002. The Leading-Edge extraction well has been operating at a flow rate of 125 gpm. As of 26 December 2025, over 899.5 million gallons of water have been treated and re-injected. J-1 Southern MTU was turned off at 0650 on 19 December 2025 to prevent further damage to the system due to a broken insulator and a blown fuse caused by high winds. J-1 Southern MTU will remain off until further notice.

Northern

The J-1 Range Northern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes two extraction wells, an ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration gallery to return treated water to the aquifer.

The Northern MTU continues to operate at a total system flow rate of 250 gpm. The flow rates for the two extraction wells at J-1 Northern were modified on 28 October 2024 based on regulatory agency concurrence with the J-1 Range Northern Data Presentation for January 2023 to December 2023. The flow rate at J1NEW0001 was reduced from 125 gpm to 85 gpm and the flow rate at J1NEW0002 was increased from 125 gpm to 165 gpm.

As of 26 December 2025, over 1.566 billion gallons of water have been treated and re-injected. No J-1 Range Northern MTU shutdowns occurred in the reporting period.

Central Impact Area RA

The Central Impact Area (CIA) Groundwater treatment system consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETR system includes the following components: three extraction wells, an ex-situ treatment process consisting of an ion exchange resin and granular activated carbon media to treat explosives compounds, and three infiltration galleries to return treated water to the

aquifer. CIA systems 1, 2 and 3 continue to run at a total flow rate of 750 gpm. As of 26 December 2025, over 4.204 billion gallons of water have been treated and re-injected. No CIA shutdowns occurred in the reporting period.

2. SUMMARY OF ACTIONS TAKEN

Operable Unit (OU) Activity as of 26 December 2025:

CIA
- Source Area Investigation
  - Conducted routine visual check of CSS cover and surface area around perimeter of the CSS.
- Groundwater sampling within the CIA SPM Program

Demolition Area 1
- Groundwater sampling within the Demolition Area 1 SPM Program

Demolition Area 2
- No activity

J-1 Range
- Groundwater sampling within the J-1 North SPM Program

J-2 Range
- No activity

J-3 Range
- No activity

L Range
- No activity

Small Arms Ranges
- No activity

Northwest Corner
- No activity

Training Areas
- No activity

Impact Area Roads
- No activity

Other
- Collected process water samples from Central Impact Area, Demolition Area 1, J-1 Range Northern, J-1 Range Southern, J-2 Range Eastern, J-2 Range Northern, and J-3 Range treatment systems.

JBCC Impact Area Groundwater Study Program (IAGWSP) Tech Update Meeting Minutes for 13 November 2025

Project and Fieldwork Update

Darrin Smith (USACE) provided the project and fieldwork update. He reported that groundwater sampling crews completed the J-1 Range North annual system performance monitoring (SPM) sampling on December 3rd and groundwater sampling at Central Impact Area (CIA) semi-annual wells was completed on December 4th. Groundwater sampling at the Demolition Area 1 semi-annual wells is ongoing. It began on December 8th and is scheduled to be completed next week. Mr. Smith (USACE) said that beginning in the new year, crews will perform the J-3 Range semi-annual and the CIA annual SPM sampling.

Mr. Smith (USACE) reviewed the treatment system sampling update. There were no exceedances of the Action Level (AL) based on the results of the November monthly treatment system process water sampling. He noted that no samples were collected at CIA-1, CIA-2, or Demolition Area 1 Frank Perkins Road (FPR) as these systems were turned off due to the government shutdown. The December sampling was performed December 1st through December 4th and the results are pending. CIA-1 and CIA-2 were sampled during this event. These two systems were restarted on November 17th. Demolition Area 1 FPR was not sampled as the system has remained offline since September 30th.

Mr. Smith (USACE) continued with an update on the status of groundwater treatment systems. He explained that granular activated carbon (GAC) change out at CIA-1 and CIA-2 is still needed based on RDX AL exceedances (0.25 µg/L) in the September monthly sample from the mid sample port. Both effluent results were non-detect, and we are awaiting current year funding to perform these changeouts.

Mr. Smith (USACE) reminded the group that Demolition Area 1 FPR system remains off. The next course of action is being evaluated and will be discussed during the Demolition Area 1 Environmental Monitoring Report (EMR) presentation later in the meeting.

Mr. Smith (USACE) said the J-1 Range North system is still running at 250 gallons per minute (GPM) with EW0002 running at 145 GPM and EW0001 running at 105 GPM, rather than 165 and 85 GPM, respectively. The pumping rate at EW0002 was turned down last June due to it overheating, and now that conditions have cooled, it will be turned up to 155 GPM (with EW-1 running at 95 GPM) and monitored closely. A pump and motor upgrade at EW-2 is being considered, pending current year funding.

Jeff Dvorak (USACE) stated there is currently no field work happening in the CIA.

Document and Project Tracking

Mr. Dvorak (USACE) reviewed the tracking list for documents and upcoming presentations. Mr. Cody (ARNG) noted that one of the things the federal government is trying to do is be more

efficient and the EMRs are one of the areas we are looking at, and he appreciated everyone working with the program to try to streamline the documents. Jodi Lyn Cutler (IAGWSP) said that she planned to have a more in-depth discussion on the EMRs and document review processes however, with several key people not in attendance, she plans to set up a separate smaller meeting sometime in the near future.

Mr. Cody (ARNG) mentioned that a class from Massachusetts Maritime Academy had come for a tour on Monday and had said that they were very impressed with the work that has been done over the past 30 years.

Demolition Area 1 Annual EMR Presentation

Mike Kulbersh (USACE) began a presentation on the Demolition Area 1 Annual EMR. Mr. Kulbersh (USACE) explained that during the reporting period (July 2024 through June 2025), no new investigative work was conducted.

Mr. Kulbersh (USACE) showed a figure with an overview of the Demolition Area 1 site and noted that there are four Zones. He explained that Zone 1 is referred to as being upgradient of FPR system. During the reporting period, there were two extraction wells that were active: the source area well D1EW4 and D1EW-501, which is part of the FPR system. In Zone 1 there are no perchlorate plumes and there is a small RDX plume from the bowl to D1EW-4. There are no plumes of perchlorate or RDX in Zone 2 and, as a result, the former Pew Road extraction well D1EW-2 was shut down. In Zone 3, there is extraction well D1EW3. During the reporting period, the off-base extraction well D1EW-5 was also operational.

Mr. Kulbersh (USACE) reviewed the treatment system statistics. He explained that the FPR system was operational 87.8% of the time, the base boundary system was operational 98.8% of the time, and the leading-edge system was operational 98% of the time. The was no breakthrough or media changeouts during the reporting period. The perchlorate mass removed during the reporting period was 0.17 pounds total and the total historical mass removed is 78.93 pounds. The RDX mass removed during the reporting period was 0.2 pounds and the historical total of RDX mass removed is approximately 47.98 pounds. To date, the FPR system has removed 75.86 pounds of perchlorate and approximately 48 pounds of RDX. The Pew Road system removed 41.2 pounds of perchlorate and 5.5 pounds of RDX before it was shut down in 2021.

Mr. Kulbersh (USACE) reviewed the groundwater monitoring for the reporting period. He noted that there are essentially two areas where there are plumes principally. For RDX, there is the source area to D1EW4 in Zone 3. For perchlorate, the only plumes are in Zone 3 and the area measured around MW-602 off base. Mr. Kulbersh (USACE) noted in Zone 3 there is an area called “Powerline Road” where there are over 15 monitoring wells, and he will be referring to this area and Frederickson Road in the next few slides.

The totals for field samples were reviewed. There were 62 groundwater samples tested for RDX. Mr. Kulbersh (USACE) stated that the range of concentrations for RDX were from non-detect (ND) to a high of 3.7 parts per billion (ppb) in well MW-730M2 on Powerline Road in Zone 3. There were six screens greater than 0.97 ppb, which is the Regional Screening Level (RSL), at MW-19S, MW-31S, MW-531M1, MW-533M1, MW-544M1, and MW-730M2. There were three screens greater than 2.0 ppb, which is the Lifetime Health Advisory (LHA), at MW-19S, MW-533M1, and MW-730M2. Mr. Kulbersh (USACE) displayed groundwater monitoring and results

trend plots for RDX. He noted that in Zone 1, the maximum RDX concentration was 2.6 parts per billion (ppb MW-19S). In Zone 3, which are wells west to the base boundary, the maximum RDX concentration was 3.7 ppb (MW-730M2). Mr. Kulbersh (USACE) displayed and reviewed RDX trend graphs and cross sections.

Mr. Kulbersh (USACE) reviewed the perchlorate groundwater sampling totals. During the reporting period, there were 77 groundwater samples ranging from ND to 6.7 ppb at MW-531M1, which is on Powerline Road. Almost all of the perchlorate plume exists in Zone 3 or Zone 4. There were 13 screens with exceedances greater than 2 ppb, which is the Massachusetts Maximum Contaminant Level (MMCL). He reiterated that there is no plume in Zone 4, but there is a single exceedance of the MMCL at MW-602M2. Mr. Kulbersh (USACE) displayed figures showing the perchlorate trends in key wells.

The synoptic water level gauging data was reviewed. One site-wide (Zones 1–4) synoptic water level round was collected in May of the reporting period. It included 184 gauging locations which were 178 monitoring wells/piezometers, three extraction wells, two injection wells, and the staff gauge at North Pond. Three shallow wells were dry. The hydraulic monitoring observations were consistent with past reporting periods. Mr. Kulbersh (USACE) noted that there is now over 20 years of water level data and the gradients across the site are increasing, moving east to west, as a result of getting closer to discharge points. Mr. Kulbersh (USACE) showed and reviewed a graph illustrating the top of mound and gauging data summary.

Mr. Kulbersh (USACE) continued with a review of the capture zone analysis and explained that the capture zones were developed manually and later compared to model-simulated capture zones. In Zone 1, RDX is adequately captured by D1-EW-4 and there is no perchlorate plume. In Zone 2, there are no plumes or extraction system, since D1-EW-2 was turned off in March 2021. In Zone 3, the Perchlorate and RDX between Fredrickson Road and the Base Boundary is within D1-EW-3 capture zone, and this includes MW-531M1, which is the highest detected perchlorate during reporting period (6.7 µg/L). Also in Zone 3, portions of the Perchlorate & RDX plumes, including wells MW-533M1/MW-730M2/MW-731M2, are either on the edge of the capture zone or outside of the inferred capture zone (just within the modeled capture zone) and simulated to be below MMCLs/risk-based concentrations (RBCs) before reaching the base boundary. He explained that in Zone 3, 3PE was used as another tool to assess capture. Near-field wells show greater influence and flow direction towards extraction well, D1-EW-3 post-packering compared to pre-packering. Far-field wells show some to minimal change in direction at distance and depth. In Zone 4, perchlorate was detected in one well above the MMCL of 2 ppb at MW-602M1 (5.3 ppb) and is within the capture zone of D1-EW-5. There were no exceedances of the RDX RSL in this zone.

Mr. Kulbersh (USACE) continued with a review of the measured vs. modeled mass removal. He noted that the 2023 perchlorate and RDX plume shells were used when compared to measured values in this reporting period. The total RDX removed from July 2024 through June 2025 was calculated at 0.02 pounds and simulated at 0.038 pounds. The total perchlorate removed from July 20024 through June 2025 was calculated at 0.17 pounds and simulated at 0.45 pounds. In general, mass removal continues to decline but mass removal is minimal compared to amounts removed during early remediation activities. In total, 120 pounds of perchlorate have been removed and 53.5 pounds of RDX have been removed. Perchlorate and RDX mass removal and plume-predicted removals graphs and figures were reviewed and discussed.

Mr. Kulbersh (USACE) reviewed cleanup timeframes. He noted that the perchlorate cleanup time in the Decision Document (DD) was 2025, which was based on a 2013 technical memorandum comparison to the MMCL.

Mr. Kulbersh (USACE) noted that perchlorate was conservatively modeled without incorporating dispersion. He reported the following: Zones 1 & 2 cleanup has been achieved as both are below the MMCL, Zone 3 attenuation/capture will be below 2 ppb by 2034.5, Zone 4 attenuation will be below 2 ppb by 2029 (upgradient of D1-EW-5), and downgradient attenuation has been achieved.

Mr. Kulbersh (USACE) stated that the RDX cleanup time in the DD was 2022, which was also based on the 2013 technical memorandum comparison to the RBC. Mr. Kulbersh (USACE) noted that RDX was modeled using the attenuation factor. He reported the following: Zone 1 from the source to D1-EW-4, attenuation to below the RSL by 2030 (but is dependent on source concentrations). RDX between D1-EW-4 & D1-EW-501 has been achieved. Zone 2 has achieved attenuation below the RBC, Zone 3 (west of Pew Rd. to base boundary) attenuation is expected to be below the RBC by 2032, likely before the perchlorate cleanup, and Zone 4 is below the RBC.

Mr. Kulbersh (USACE) summarized the 2025 Annual Report recommendations starting with the extraction wells. In Zone 1, it is recommended to shut down the FPR source area extraction well D1-EW-4, based on continuing low-mass removal from the FPR system (0.02 lbs.) and attenuation of RDX to new RSL value of 0.97 ppb by 2030. For the chemical monitoring network, the IAGWSP recommends ceasing influent sampling at FPR upon shutdown of the extraction well. In Zone 1, discontinuing explosives sampling at one monitoring well (MW-165M2). In Zone 3 reducing the sampling at three monitoring wells; one for perchlorate (MW-663D) and two for explosives (MW-664M1/M2), and in Zone 4, increasing sampling at two monitoring wells both for perchlorate (MW-569M1/MW-571M1) and one for explosives (MW-569M1); and decreasing the sampling frequency at three monitoring wells for perchlorate (MW-641M1, MW-642M1/M2).

For the hydraulic monitoring network, the IAGWSP recommends in Zone 1 removing extraction well D1-EW-4 and injection wells D1-IW-1/D1-IW-5 and adding three monitoring wells (adjacent to extraction well D1-EW-4) to the annual synoptic gauging program. For Zone 4, removing the decommissioned wells D1-EW-5 and MW-659/M1/M2 is recommended. Mr. Kulbersh (USACE) noted that the decommissioning and removal of the leading edge ETR system including monitoring wells was completed on September 25. Mr. Kulbersh (USACE) finished by showing a figure of legacy plumes compared to current data.

Jessica Crispin (MADEP) asked if there was any change in the vertical depth of the capture zone after the packering was done at D1-EW-3. Mr. Kulbersh (USACE) replied there was a slightly higher upwards vertical gradient. He noted that the contamination is deeper in this area and the well at one time was 100 feet in length. Over a series of years, the well was packered 20 feet in length so the screen is now 60 feet long to focus on the deep contamination. Mr. Lim (EPA) asked if there is any portion of the plume getting by or has the packering helped to ensure capture at the base boundary. Mr. Kulbersh (USACE) noted that when the system went online in 2011, all of Zone 3 wasn’t fully evaluated. The packering has helped to expand capture but the system is now maxed out at its pumping rate. He noted that while some contamination might have passed by pre-packering, at this time, the current system is capturing the plume in

this area. Ms. Crispin (MADEP) asked if the well that is proposed for shut down is the same one that is not currently running. Mr. Kulbersh (USACE) replied that it is.

Mr. Dvorak (USACE) noted that the team is putting together a high-level presentation on plume shell development and planned to present it to the group early in the new year.

Next Meeting Date
January 8, 2026

JBCC Cleanup Team Meeting

The next JBCC Cleanup Team (JBCCCT) meeting is tentatively scheduled for February 4, 2026. Meeting details and presentation materials from previous meetings can be found on the IAGWSP web site at http://jbcc-iagwsp.org/community/impact/presentations/. The Cleanup Team meeting discusses late breaking news and responses to action items, as well as updates from the IAGWSP and the Installation Restoration Program (IRP). The JBCCCT meetings provide a forum for community input regarding issues related to both the IRP and the IAGWSP.

3. SUMMARY OF DATA RECEIVED

Table 1 summarizes sampling for all media from 01 to 31 December 2025. Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 01 to 31 December 2025. These results are compared to the Maximum Contaminant Levels/Health Advisory (MCL/HA) values for respective analytes. Explosives and perchlorate are the primary contaminants of concern (COC) at Camp Edwards. No explosives or perchlorate validation was completed during December 2025; therefore, Table 2 is not included. Table 3 summarizes the validated detections of per- and polyfluoroalkyl substances (PFAS) for influent and groundwater results analyzed by EPA draft Method 1633 and received from 01 to 31 December 2025. Table 3 PFAS results are compared to the Regional Screening Levels (RSLs) published by EPA in November 2023.

The operable units (OUs) under investigation and cleanup at Camp Edwards are the Central Impact Area, Demolition Area 1, Demolition Area 2, J-1 Range, J-2 Range, J-3 Range, L Range, and Small Arms Ranges. Environmental monitoring reports for each OU are generated each year to evaluate the current year groundwater results. These reports are available on the site Environmental Data Management System (EDMS) and at the project document repository (IAGWSP office).

4. SUBMITTED DELIVERABLES

No deliverables were submitted during the reporting period.

5. SCHEDULED ACTIONS

The following actions and/or documents are being prepared in January 2026.

- Response to Comments on the Draft J-3 Range EMR for September 2023 through August 2024
- Response to Comments on the Draft L Range EMR for March 2024 through February 2025

- Draft J-1 Range South EMR for January 2024 through December 2024
- Draft J-1 Range Northern EMR for January 2024 through December 2024
- Response to Comments on the IAGWSP Comprehensive PFAS Report
- Demolition Area 2 Demonstration of Compliance
- Site-Wide QAPP Update
- Draft CIA Environmental Monitoring Report for July 2024 through June 2025
- Draft Demolition Area 1 Environmental Monitoring Report for July 2024 through June 2025
- Draft Demolition Area 2 Demonstration of Compliance
- Northwest Corner Demonstration of Compliance Response to Comments
- Small Arms Ranges Project Note for Site Closure

TABLE 1
Sampling Progress: 01 to 31 December 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Demolition Area 1	MW-732M2	MW-732M2_F25	N	12/18/2025	Ground Water	96.20	106.20
Demolition Area 1	MW-732M1	MW-732M1_F25	N	12/18/2025	Ground Water	156.00	166.00
Demolition Area 1	MW-544M1	MW-544M1_F25	N	12/17/2025	Ground Water	162.00	172.00
Demolition Area 1	MW-663D	MW-663D_F25	N	12/17/2025	Ground Water	240.60	250.60
Demolition Area 1	MW-533M1	MW-533M1_F25	N	12/17/2025	Ground Water	160.00	170.00
Demolition Area 1	MW-730M3	MW-730M3_F25	N	12/16/2025	Ground Water	115.46	125.46
Demolition Area 1	MW-730M2	MW-730M2_F25	N	12/16/2025	Ground Water	165.87	175.87
Demolition Area 1	MW-730M2	MW-730M2_F25D	FD	12/16/2025	Ground Water	165.87	175.87
Demolition Area 1	MW-730M1	MW-730M1_F25	N	12/16/2025	Ground Water	185.82	195.82
Demolition Area 1	MW-731M3	MW-731M3_F25	N	12/11/2025	Ground Water	160.10	170.10
Demolition Area 1	MW-731M2	MW-731M2_F25	MS	12/11/2025	Ground Water	190.90	200.90
Demolition Area 1	MW-731M2	MW-731M2_F25	N	12/11/2025	Ground Water	190.90	200.90
Demolition Area 1	MW-731M2	MW-731M2_F25	SD	12/11/2025	Ground Water	190.90	200.90
Demolition Area 1	MW-731M1	MW-731M1_F25	N	12/11/2025	Ground Water	220.80	230.80
Demolition Area 1	MW-545M3	MW-545M3_F25	N	12/10/2025	Ground Water	101.50	111.50
Demolition Area 1	MW-545M2	MW-545M2_F25	N	12/10/2025	Ground Water	142.00	152.00
Demolition Area 1	MW-545M2	MW-545M2_F25D	FD	12/10/2025	Ground Water	142.00	152.00
Demolition Area 1	MW-545M1	MW-545M1_F25	N	12/10/2025	Ground Water	162.00	172.00
Demolition Area 1	XX9514	XX9514_F25	N	12/10/2025	Ground Water	0.00	0.00
Demolition Area 1	MW-648M1	MW-648M1_F25	N	12/09/2025	Ground Water	112.00	122.00
Demolition Area 1	MW-19S	MW-19S_F25	N	12/09/2025	Ground Water	38.00	48.00
Demolition Area 1	MW-19S	MW-19S_F25D	FD	12/09/2025	Ground Water	38.00	48.00
Demolition Area 1	MW-31S	MW-31S_F25	N	12/08/2025	Ground Water	98.00	103.00
Demolition Area 1	MW-31M	MW-31M_F25	N	12/08/2025	Ground Water	113.00	123.00
Demolition Area 1	MW-571M1	MW-571M1_F25	N	12/08/2025	Ground Water	114.00	124.00
Demolition Area 1	MW-569M1	MW-569M1_F25	N	12/08/2025	Ground Water	114.00	124.00
J1 Range Southern	J1S-EFF	J1S-EFF-217A	N	12/04/2025	Process Water	0.00	0.00
J1 Range Southern	J1S-MID	J1S-MID-217A	N	12/04/2025	Process Water	0.00	0.00

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 December 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J1 Range Southern	J1S-INF-2	J1S-INF-2-217A	N	12/04/2025	Process Water	0.00	0.00
Central Impact Area	MW-617M1	MW-617M1_F25	N	12/04/2025	Ground Water	175.80	185.80
J3 Range	J3-EFF	J3-EFF-231A	N	12/04/2025	Process Water	0.00	0.00
J3 Range	J3-MID-2	J3-MID-2-231A	N	12/04/2025	Process Water	0.00	0.00
J3 Range	J3-MID-1	J3-MID-1-231A	N	12/04/2025	Process Water	0.00	0.00
J3 Range	J3-INF	J3-INF-231A	N	12/04/2025	Process Water	0.00	0.00
Demolition Area 1	D1-EFF	D1-EFF-185A	N	12/04/2025	Process Water	0.00	0.00
Demolition Area 1	D1-MID-2	D1-MID-2-185A	N	12/04/2025	Process Water	0.00	0.00
Demolition Area 1	D1-MID-1	D1-MID-1-185A	N	12/04/2025	Process Water	0.00	0.00
Demolition Area 1	D1-INF	D1-INF-185A	N	12/04/2025	Process Water	0.00	0.00
Central Impact Area	MW-695S	MW-695S_F25	N	12/04/2025	Ground Water	130.00	140.00
Central Impact Area	MW-695S	MW-695S_F25D	FD	12/04/2025	Ground Water	130.00	140.00
Central Impact Area	MW-616M1	MW-616M1_F25	N	12/03/2025	Ground Water	217.10	227.10
Central Impact Area	MW-625M1	MW-625M1_F25	N	12/03/2025	Ground Water	260.00	270.00
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-INF-J	J2E-INF-J-207A	N	12/03/2025	Process Water	0.00	0.00
J1 Range Northern	MW-590M2	MW-590M2_F25	N	12/03/2025	Ground Water	238.00	248.00
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-207A	N	12/03/2025	Process Water	0.00	0.00
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-207A	N	12/03/2025	Process Water	0.00	0.00
J1 Range Northern	MW-590M1	MW-590M1_F25	N	12/03/2025	Ground Water	258.00	268.00
J2 Range Eastern	J2E-INF-I	J2E-INF-I-207A	N	12/03/2025	Process Water	0.00	0.00
J1 Range Northern	MW-584M2	MW-584M2_F25	N	12/02/2025	Ground Water	228.00	238.00
Central Impact Area	CIA2-EFF	CIA2-EFF-143A	N	12/02/2025	Process Water	0.00	0.00

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 December 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Central Impact Area	CIA2-MID2	CIA2-MID2-143A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA2-MID1	CIA2-MID1-143A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA2-INF	CIA2-INF-143A	N	12/02/2025	Process Water	0.00	0.00
J1 Range Northern	MW-584M1	MW-584M1_F25	N	12/02/2025	Ground Water	248.00	258.00
Central Impact Area	CIA1-EFF	CIA1-EFF-143A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA1-MID2	CIA1-MID2-143A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA1-MID1	CIA1-MID1-143A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA1-INF	CIA1-INF-143A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA3-EFF	CIA3-EFF-114A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA3-MID2	CIA3-MID2-114A	N	12/02/2025	Process Water	0.00	0.00
J1 Range Northern	MW-401M3	MW-401M3_F25	N	12/02/2025	Ground Water	228.50	238.50
Central Impact Area	CIA3-MID1	CIA3-MID1-114A	N	12/02/2025	Process Water	0.00	0.00
Central Impact Area	CIA3-INF	CIA3-INF-114A	N	12/02/2025	Process Water	0.00	0.00
J1 Range Northern	MW-401M1	MW-401M1_F25	N	12/02/2025	Ground Water	256.10	266.10
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-INF-G	J2N-INF-G-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-231A	N	12/01/2025	Process Water	0.00	0.00
J1 Range Northern	MW-656M2	MW-656M2_F25	N	12/01/2025	Ground Water	222.10	232.10
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-231A	N	12/01/2025	Process Water	0.00	0.00
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-231A	N	12/01/2025	Process Water	0.00	0.00
J1 Range Northern	MW-547M2	MW-547M2_F25	N	12/01/2025	Ground Water	178.00	188.00
J1 Range Northern	J1N-EFF	J1N-EFF-146A	N	12/01/2025	Process Water	0.00	0.00
J1 Range Northern	J1N-MID2	J1N-MID2-146A	N	12/01/2025	Process Water	0.00	0.00
J1 Range Northern	J1N-MID1	J1N-MID1-146A	N	12/01/2025	Process Water	0.00	0.00

N = Normal Sample
FD = Field Duplicate

TABLE 1
Sampling Progress: 01 to 31 December 2025

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J1 Range Northern	J1N-INF2	J1N-INF2-146A	N	12/01/2025	Process Water	0.00	0.00
J1 Range Northern	MW-547M1	MW-547M1_F25	N	12/01/2025	Ground Water	237.00	247.00
J1 Range Northern	MW-606M2	MW-606M2_F25	MS	12/01/2025	Ground Water	193.20	203.20
J1 Range Northern	MW-606M2	MW-606M2_F25	N	12/01/2025	Ground Water	193.20	203.20
J1 Range Northern	MW-606M2	MW-606M2_F25	SD	12/01/2025	Ground Water	193.20	203.20
J1 Range Northern	MW-606M1	MW-606M1_F25	N	12/01/2025	Ground Water	233.30	243.30

N = Normal Sample
FD = Field Duplicate

TABLE 3
VALIDATED PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) RESULTS
Data Received 01 to 31 December 2025

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
J2 Range Northern	MW-742M2	MW-742M2_F25	220.00	230.00	10/27/2025	E1633	Perfluorobutanoic acid (PFBA)	17.0		ng/L	1800		0.82	3.3
J2 Range Northern	MW-742M2	MW-742M2_F25	220.00	230.00	10/27/2025	E1633	Perfluoroheptanoic acid (PFHpA)	0.76	J	ng/L	20.0		0.41	1.6
J2 Range Northern	MW-742M2	MW-742M2_F25	220.00	230.00	10/27/2025	E1633	Perfluorohexanoic acid (PFHxA)	1.7		ng/L	990		0.41	1.6
J2 Range Northern	MW-742M2	MW-742M2_F25	220.00	230.00	10/27/2025	E1633	Perfluoropentanoic acid (PFPeA)	0.93	J	ng/L			0.41	1.6
J2 Range Northern	MW-743M2	MW-743M2_F25	105.00	115.00	10/27/2025	E1633	Perfluorohexanesulfonic acid (PFHxS)	0.46	J	ng/L	20.0		0.43	1.7
J2 Range Northern	MW-743M2	MW-743M2_F25	105.00	115.00	10/27/2025	E1633	Perfluorohexanoic acid (PFHxA)	0.52	J	ng/L	990		0.43	1.7
J2 Range Northern	MW-743M1	MW-743M1_F25	312.00	322.00	10/27/2025	E1633	Perfluorobutanoic acid (PFBA)	1.0	J	ng/L	1800		0.84	3.3
J2 Range Northern	MW-743M1	MW-743M1_F25	312.00	322.00	10/27/2025	E1633	Perfluorohexanoic acid (PFHxA)	1.6	J	ng/L	990		0.42	1.7
J2 Range Northern	MW-743M1	MW-743M1_F25D	312.00	322.00	10/27/2025	E1633	Perfluorobutanoic acid (PFBA)	0.98	J	ng/L	1800		0.85	3.4
J2 Range Northern	MW-743M1	MW-743M1_F25D	312.00	322.00	10/27/2025	E1633	Perfluorohexanoic acid (PFHxA)	1.6	J	ng/L	990		0.42	1.7
J3 Range	MW-746M2	MW-746M2_F25	145.00	155.00	10/23/2025	E1633	Perfluorohexanoic acid (PFHxA)	1.4	J	ng/L	990		0.45	1.8
J3 Range	MW-746M2	MW-746M2_F25	145.00	155.00	10/23/2025	E1633	Perfluorooctanoic acid (PFOA)	0.45	J	ng/L	6.0		0.45	1.8
J3 Range	MW-746M1	MW-746M1_F25	190.00	200.00	10/23/2025	E1633	Perfluorohexanoic acid (PFHxA)	5.0		ng/L	990		0.43	1.7
J3 Range	MW-746M1	MW-746M1_F25	190.00	200.00	10/23/2025	E1633	Perfluoropentanoic acid (PFPeA)	2.9		ng/L			0.43	1.7
J3 Range	MW-747M2	MW-747M2_F25	165.00	175.00	10/23/2025	E1633	Perfluorohexanoic acid (PFHxA)	1.2	J	ng/L	990		0.39	1.5
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)	3.2	J	ng/L			2.2	8.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perflouropropanoic acid (PFPrA)	3.3	J	ng/L			2.2	8.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluorobutanesulfonic acid (PFBS)	0.50	J	ng/L	600		0.47	1.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluorohexanesulfonic acid (PFHxS)	0.57	J	ng/L	20.0		0.44	1.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluorohexanoic acid (PFHxA)	6.0		ng/L	990		0.44	1.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluorooctanesulfonic acid (PFOS)	2.4		ng/L	4.0		0.44	1.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluorooctanoic acid (PFOA)	1.3	J	ng/L	6.0		0.44	1.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluoropentanesulfonic acid (PFPeS)	0.47	J	ng/L			0.44	1.8
J3 Range	MW-745M2	MW-745M2_F25	50.00	60.00	10/22/2025	E1633	Perfluoropentanoic acid (PFPeA)	1.8		ng/L			0.44	1.8
J3 Range	MW-745M1	MW-745M1_F25	90.00	100.00	10/22/2025	E1633	Perfluorohexanoic acid (PFHxA)	0.74	J	ng/L	990		0.41	1.7

J = Estimated Result
MDL = Method Detection Limit
RL = Reporting Limit
ND = Non-Detect

MCL/HA= Either the MCL or Lowest Health Advisory Limit