INL/RPT-26-89740

2025 Annual Reuse Report for the Idaho National Laboratory Site's Advanced Test Reactor Complex Cold Waste Ponds

February 2026

INL is a U.S. Department of Energy National Laboratory
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INL/RPT-26-89740

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February 2026

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Idaho Falls, Idaho 83415

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ABSTRACT

This report describes conditions and information for November 1, 2024–October 31, 2025, as required by the state of Idaho Department of Environmental Quality (DEQ) Reuse Permit I-161-03 and minor modification 3 issued to the Advanced Test Reactor Complex Cold Waste Ponds located at Idaho National Laboratory on July 24, 2025, because of a change in the authorized representative (Bruns 2025).

This report contains the following information:

- Facility and system description
- Permit required effluent monitoring data and loading rates
- Permit required groundwater monitoring data
- Status of compliance activities
- Issues/noncompliances
- Discussion of the facility's environmental impacts

In 2025, a single noncompliance event involving a non-hazardous industrial wastewater (raw water used for cooling pumps) release from a cracked underground pipe at the ATR complex was reported to DEQ, with no risk to public health or the environment and corrective actions completed.

The total volume of wastewater discharged to the Cold Waste Ponds continues to be below permit limits (maximum annual limit-375 million gallons, 5-year moving annual average—300 million gallons). For the 2025 reporting year, an estimated 148.48 million gallons of wastewater were discharged to the Cold Waste Ponds.

Concentrations of iron, TDS, and sulfate were below their respective groundwater quality standard levels (IDAPA 58.01.11) in all seven groundwater monitoring wells. Sulfate and total dissolved solids concentrations continue to remain highest in well USGS-065, which is the closest downgradient well to the Cold Waste Ponds. Chromium results in well USGS-065 are trending higher but seem to be associated with historical contamination rather than ATR operations. They will continue to be monitored closely.

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ACRONYMS

ATR	Advanced Test Reactor
BEA	Battelle Energy Alliance, LLC
CCN	correspondence control number
CFR	Code of Federal Regulations
CIC	Core Internals Changeout
CTS	Commitment Tracking System
CWP	Cold Waste Pond(s)
DEQ	Idaho Department of Environmental Quality
FM	flow measurement or monitoring description or identifier
GEL	General Engineering Laboratories
GW	prefix for groundwater reporting serial number
ICS	Initial Calibration Standard
IDAPA	Numbering designation for all administrative rules in Idaho promulgated according to the Idaho Administrative Procedures Act
INL	Idaho National Laboratory
MG	million gallons
MU	prefix for management unit reporting environmental serial number
NA	Not Applicable
NAVD	North American Vertical Datum
OOS	out of service
PCS	Primary Constituent Standard
PO	Plan of Operation
QAPP	Quality Assurance Project Plan
SCS	Secondary Constituent Standard
s.u.	standard units for pH
TDS	total dissolved solids
TRA	Test Reactor Area, or prefix for building or structure number, or prefix for groundwater reporting (well) common designation number
USGS	United States Geological Survey, or prefix for groundwater reporting (well) common designation
VFD	variable frequency drive
WW	prefix for wastewater reporting serial number

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1. INTRODUCTION

The Advanced Test Reactor (ATR) Complex Cold Waste Ponds (CWP) is a reuse facility operated by Battelle Energy Alliance, LLC (BEA) at Idaho National Laboratory (INL). During the 2025 reporting year, operations were conducted under Reuse Permit No. I-161-03, Modification 2, as issued by the state of Idaho Department of Environmental Quality (DEQ) (Ayers 2023). A minor modification was issued July 24, 2025, to update the authorized representative from Kent L. Miller to Stacy M. Nottestad (Bruns 2025).

This annual report summarizes the facility system and operation, monitoring data, special compliance conditions, issues/noncompliances, and environmental impacts for the 2025 reporting year (November 1, 2024, through October 31, 2025).

2. FACILITY, SYSTEM DESCRIPTION, AND OPERATION

The ATR Complex, Figure 1, is located on approximately 100 acres in the southwestern portion of INL, approximately 47 miles west of Idaho Falls, Idaho, in Butte County. The ATR Complex consists of buildings and structures utilized to conduct research associated with developing, testing, and analyzing materials used in nuclear and reactor applications and both radiological and non-radiological laboratory analyses.

The CWP are located approximately 450 ft from the southeast corner of the ATR Complex compound and approximately 3/4 of a mile northwest of the Big Lost River channel, Figure 1. The existing CWP were excavated in 1982. The CWP consists of two cells, each with dimensions of 180×430 ft across the top of the berms, and a depth of 10 ft. Total surface area for the two cells at the top of the berms is approximately 3.55 acres. Maximum capacity is approximately 10,220,000 gal (31.3 acre-ft).

Wastewater discharged to the CWP arises from primarily noncontact cooling tower blowdown, once-through cooling water for air conditioning units, coolant water from air compressors, secondary system drains, and other nonradioactive drains throughout the ATR Complex. The wastewater flows through collection piping to the TRA-764 Cold Waste Sample Pit, Figure 2, where the flow rate is recorded, and compliance monitoring samples are collected. The wastewater then flows to the Cold Waste Sump Pit (TRA-703). The sump pit contains submersible pumps that route the water to the appropriate pond through 8-in. valves.

Wastewater enters the ponds near the west end through concrete inlet basins. Most of the water percolates into the porous ground within a short distance from the inlet basins. The entire floor of a pond is rarely submerged. If the water level rises significantly in a pond (e.g., 5 ft), the flow will be diverted to the adjacent pond, allowing the first pond to dry out. An overflow pipe connects the two ponds at the 9-ft level.

There continues to be no existing or planned cross-connections or interconnections between the Cold Waste System wastewater and any water supplies (potable or non-potable) that would require backflow prevention assemblies, devices or methods.

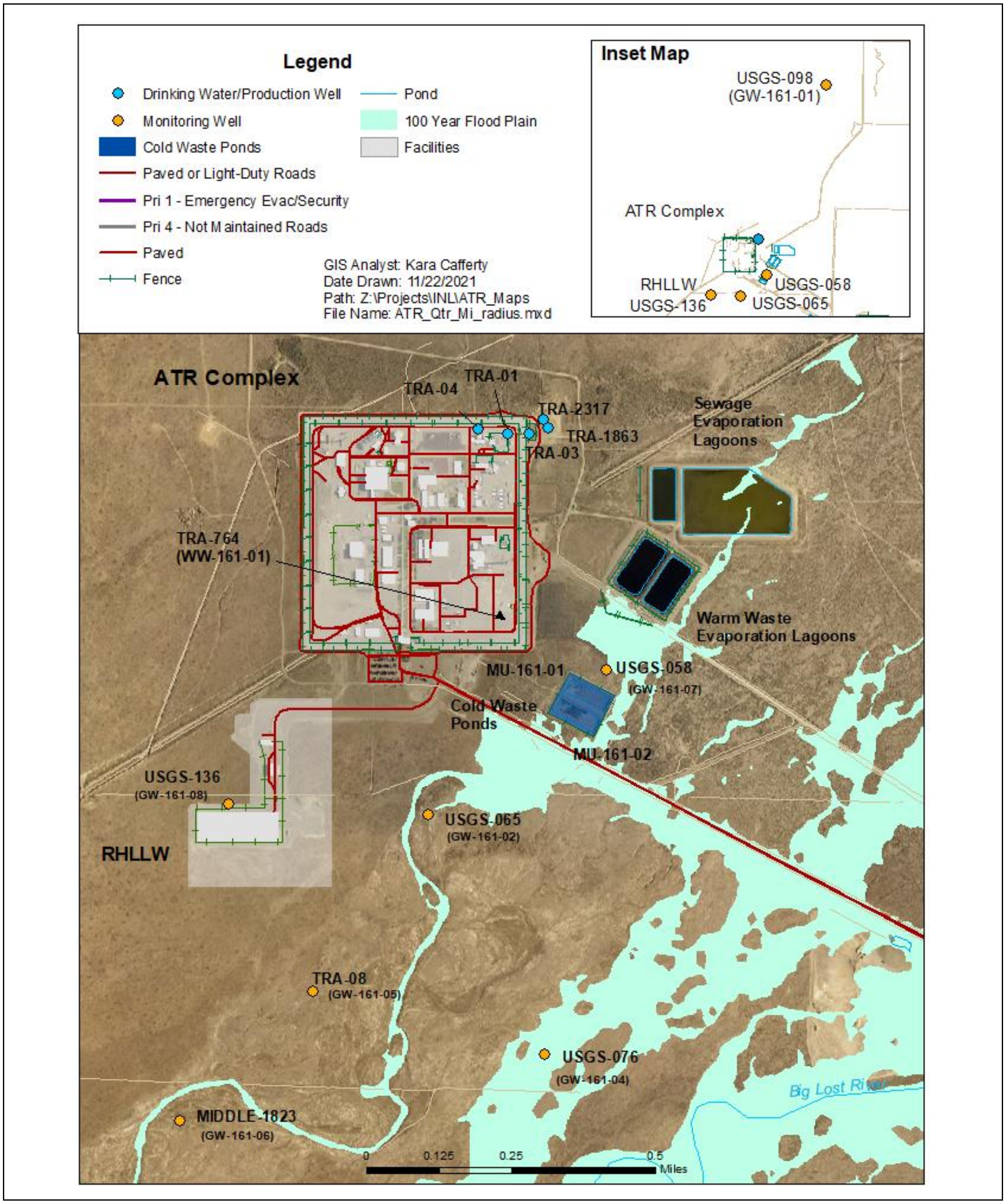

Figure 1. ATR Complex facility map showing location of the Cold Waste Ponds, monitoring, and drinking water wells, Big Lost River, and other associated surface features.

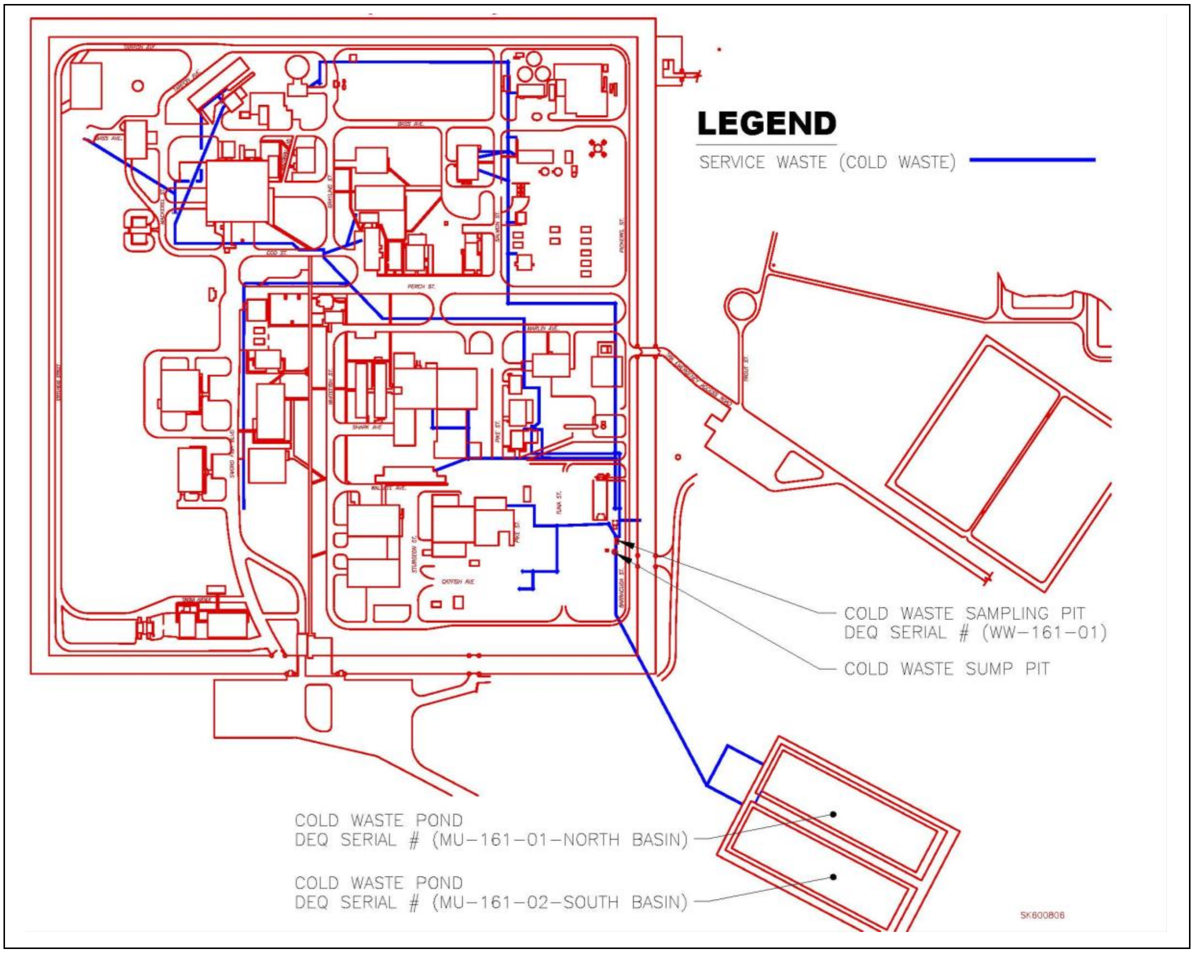

Figure 2. ATR Complex Cold Waste system flow schematic (sketch number-SK600806).

2.1 Significant Equipment Maintenance

The ATR had six planned outages for maintenance throughout the 2025 report year. In addition to planned outages, there were four unplanned outages due to extenuating circumstances. During reactor shutdowns, the ATR secondary cooling system, including the ATR cooling tower, was not needed nor operated, and once-through non-contact cooling water normally valved to the ATR cooling tower basin for use as makeup water was valved to the CWP collection system. Further discussion on the impacts to flow and the corresponding estimations are discussed in Section 3.3. The impacts on constituent concentrations are discussed in Section 3.2.

As reported during the August 5, 2022 conference call (Cafferty 2022), the system includes two valves: one controlling flow to the North Pond and the other to the South Pond. The valve to the South Pond is currently stuck in the open position, which has prevented the routine monthly switching of flow between the ponds. Throughout this reporting year, flow was directed to the South Pond until July 3, 2025, when the North Pond valve was opened to exercise it and prevent potential seizing of both valves. Following this, it was decided to keep the North Pond valve open to help reduce the load on the South Pond. At present, both valves remain open, allowing flow to be directed to both ponds simultaneously.

Funding has been requested to repair the valve. A plan is currently being developed to fix the valve, which will likely involve excavation and temporary re-routing of flows. Efforts will be made to minimize the discharge of wastewater to nonpermitted areas during the repair. Unless otherwise directed, any discharges from this activity will be reported in the following year’s annual report.

During the 2025 reporting year, there was one instance of a release outside the permitted discharge location. This release was discovered during construction activities when a cracked cold waste pipe was uncovered. Further details on the release and its repair can be found in Section 5.2, "Issues/Noncompliance."

3. COLD WASTE PONDS EFFLUENT MONITORING

3.1 Sampling Program and Analytical Methods

The effluent discharges to ATR Complex CWP are monitored by trained and qualified BEA personnel. Effluent samples were collected monthly as required in Section 5.1.1 of the Reuse Permit. This program involves sampling, analysis, and data interpretation carried out under a quality assurance program. The Quality Assurance Project Plan (QAPP), as required by the Reuse Permit, was implemented March 2020 (Miller, T. 2020). The QAPP was revised in July 2024 to update the distribution list and points of contact. This was an administrative update and is available upon request. The QAPP identifies the scope of monitoring, the organization and individuals involved, data quality objectives, monitoring procedures, and specific quality control measures. The purpose of the QAPP is to ensure data of sufficient quantity and quality is collected to meet permit and regulatory expectations.

The effluent samples were collected monthly from the TRA-764 Cold Waste Sample Pit (sampling location WW-161-01) as required by the permit, prior to discharge to the CWP. All samples were collected as 24-hour flow proportional composite samples using a Hach AS950 automated composite sampler. Sampling events were randomly scheduled within the constraints of the sampling staff and laboratory availability. Effluent samples are typically collected early in the month (first or second week) and on a Tuesday or Wednesday of the selected week. This ensures the laboratory can receive the samples during normal working hours so that temperature control and holding time requirements are met. This allows additional time in the month to collect samples in the event there are issues with the original samples, sampling equipment, flowmeter, etc. On occasion, if the sampling schedule must be changed, the rescheduled events always occur within the same month as the original scheduled event.

All samples were analyzed using methods identified in 40 Code of Federal Regulations (CFR) 136, “Guidelines Establishing Test Procedures for the Analysis of Pollutants;” 40 CFR 141, “National Primary Drinking Water Regulations;” or 40 CFR 143, “National Secondary Drinking Water Regulations.” Field parameters were measured with a meter calibrated within 24 hours of sample collection. All other permit-required samples were submitted under full chain-of-custody to GEL Laboratories located in Charleston, South Carolina.

3.2 Effluent Monitoring Results

All effluent samples were collected and analyzed as required during the permit year, November 1, 2024–October 31, 2025. All samples were collected according to established programmatic sampling procedures. Total and filtered metals were analyzed to monitor system performance and provide better comparison to groundwater monitoring results. Field parameters including pH and electrical conductivity were measured at the time of sample collection using calibrated instruments. The effluent monitoring results are presented in Table 1.

The effluent data packages were submitted for data validation by an independent contractor to evaluate the useability of the analytical results. Validation qualifier flags are assigned to data results merely to serve as caveats to data users. Several effluent sample results were qualified during data validation. The J-qualified results are definitive data that are considered estimates that may be inaccurate or imprecise, typically due to a laboratory quality control parameter outside of an acceptable range. These validation reports may be available upon request for further review. These qualified values are presented in Table 1.

As mentioned previously in Section 2.1, the ATR had several planned and unplanned outages throughout the 2025 report year. It was anticipated that the total effluent volume to the CWP would be greater during outages which would also result in lower concentrations of sulfate and total dissolved solids (TDS) in the monthly sampling. The range of concentrations seen are a result of the ATR alternating between operational conditions and shutdowns as shown in Figure 3.

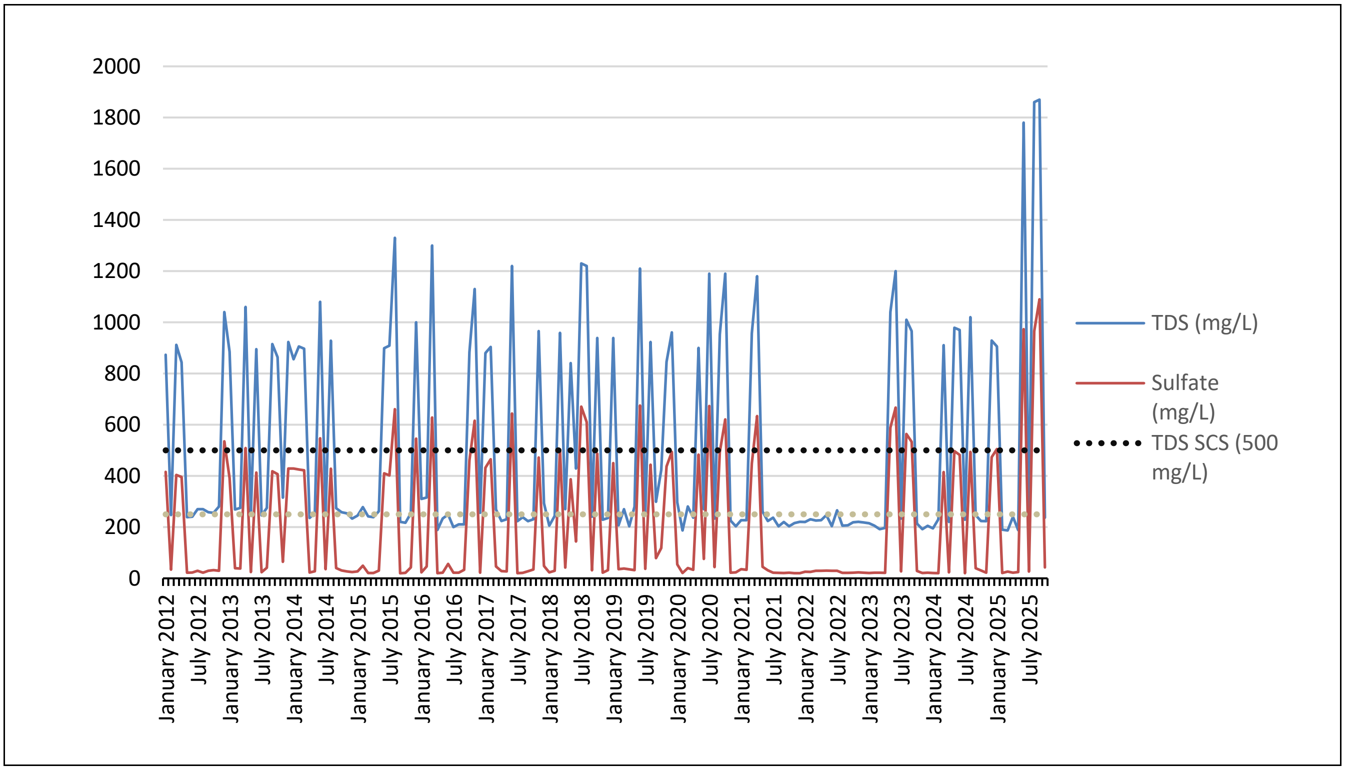

Figure 3. Historical sulfate and TDS effluent concentrations.

When the ATR is operating, hydraulic discharge rates to the CWP are typically low while the evaporative cooling process concentrates naturally occurring TDS and additives in the blowdown. Sulfates are generated by reactions between sulfuric acid additives placed in the cooling water and calcium and magnesium carbonates in the water. Thus, sulfate and TDS effluent concentrations trend higher when the ATR is operating. Similarly, the evaporative effect of the cooling tower results in elevated chromium and nitrate+nitrite-nitrogen concentrations when the ATR is operating. When the ATR is in outage conditions, hydraulic discharge rates to the CWP are typically greater and secondary cooling system blowdown is minimal.

During ATR outages, the secondary cooling system, including the ATR cooling tower, is not required and remains out of service. Consequently, once-through non-contact cooling water, which is normally directed to the ATR cooling tower basin as makeup water, is instead routed to the Cold Waste Pond (CWP) collection system. In addition, because the cooling tower basin blowdown is not generated during outages, no blowdown water is discharged to the CWP system. This operational change reduces effluent concentrations of chromium, nitrate + nitrite nitrogen, sulfate, and total dissolved solids (TDS).

During the summer of 2025, a cold waste line carrying air compressor cooling water from TRA-609 was damaged, requiring temporary rerouting of this wastewater to the sewage lagoons. As a result, this stream no longer mixes with ATR cooling tower blowdown, causing the cold waste effluent to the reuse ponds to exhibit a lower volumetric flow rate, higher constituent concentration, and elevated temperature.

A repair plan is being developed, and preparations for construction are underway to restore the line and return the system to normal operation.

The chromium and iron concentrations continue to be monitored. Figure 4 shows historical concentrations.

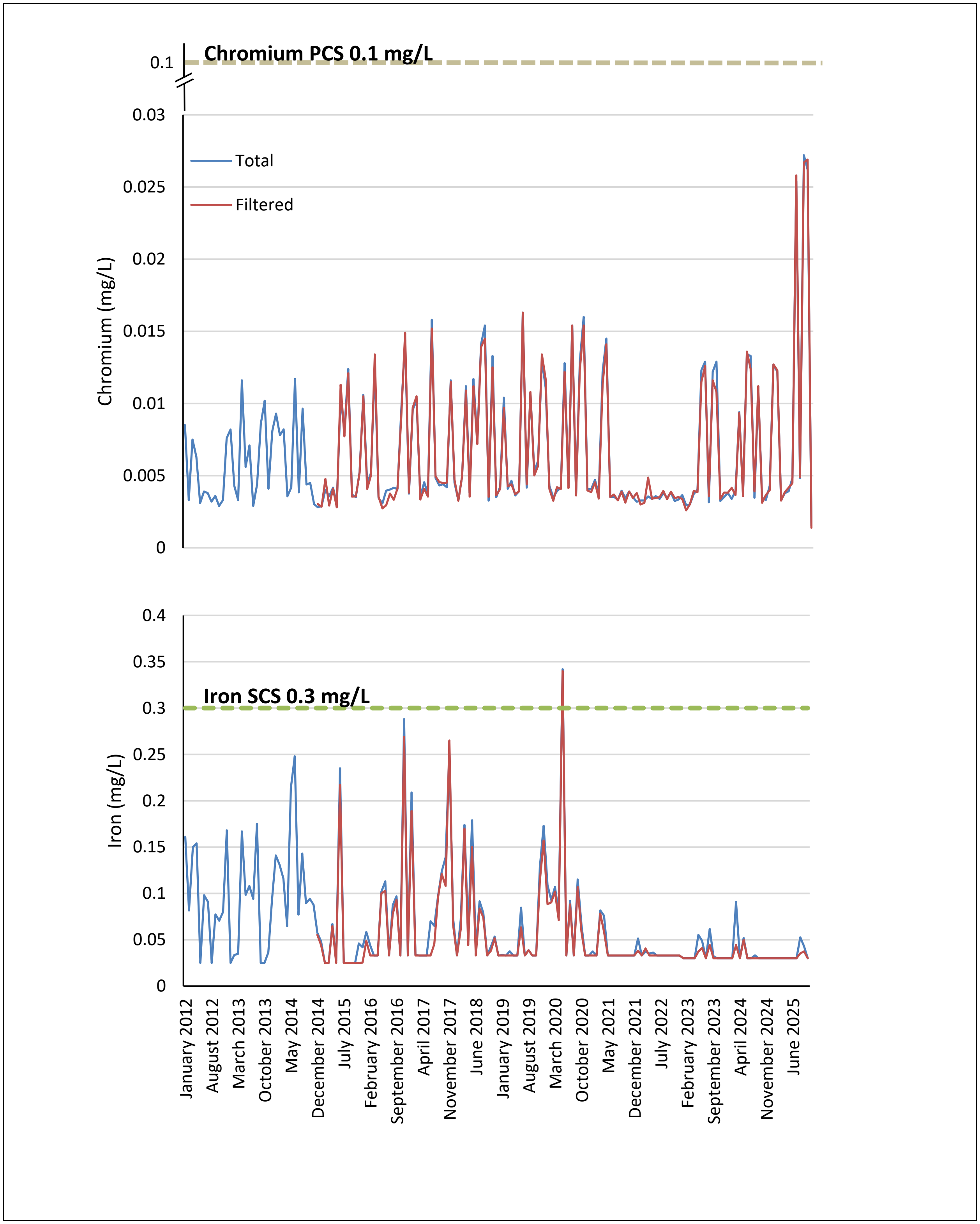

Figure 4. Historical chromium and iron concentrations.

Table 1. Advanced Test Reactor Complex Cold Waste Ponds effluent data for samples collected in accordance with Reuse Permit I-161-03.

Sample Month	November	December	January	February	March	April	May	June	July	August	September	October
Sample Date	11/5/24	12/10/24	1/16/25	2/11/25	3/11/25	4/15/25	5/6/25	6/10/25	7/17/25	8/12/25	9/3/25	10/14/25
pH (s.u.)	7.66	7.57	7.43	7.21	7.24	6.99	7.68	7.35	6.75	7.86	7.70	7.82
Electrical conductivity (µS/cm)	397	1268	1248	396	414	393	407	2112	411	2176	2165	437
Nitrate+nitrite as nitrogen (mg/L)	0.936	3.17	2.93	0.975	1.01	1.08J[b]	0.995	6.77 (5.75)[a]	1.02	6.10J	5.70J	0.895J
Sulfate (mg/L)	21.7	473	505	20.8	26.3	22.1	24.7	973 (1010)	26.6	965	1090	42.4
Total dissolved solids (mg/L)	223	929	906	190	187	240	188	1780 (1780)	226	1860	1870	237
Chromium, total (mg/L)	0.0043	0.0127	0.0122	0.00329	0.00379	0.00392J	0.00484	0.0254 (0.0250)	0.00484	0.0272	0.0262	0.00152J
Chromium, filtered (mg/L)	0.00399	0.0127	0.0123	0.00327	0.00386	0.00417J	0.00448	0.0258 (0.0263)	0.00489	0.0267	0.0269	0.00139J
Iron, total (mg/L)	0.03U[c]	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U (0.03U)	0.03U*[d]	0.0527	0.0431	0.03U
Iron, filtered (mg/L)	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U (0.03U)	0.03U*	0.0353	0.0375	0.03U

a. Results shown in parenthesis are from field duplicate samples collected in June.
b. J flag indicates the associated value is an estimate and may be inaccurate or imprecise.
c. U qualification indicates that the analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
d. U* qualification indicates that the analyte was analyzed for, but not detected above the MDL, MDA, or LOD and a quality control analyte recovery is outside of specified acceptance criteria.

3.3 Flow Volumes and Hydraulic Loading Rates

Daily flow readings were taken by ATR Complex CWP operations personnel during the 2025 permit year, as required by Section 5.1.2 of the Reuse Permit, at the TRA-764 Cold Waste Sample Pit where the flowmeter (FM-161-01) is located. The flowmeter measures flow to the North Pond (MU-161-01) and to the South Pond (MU-161-02). All flow readings were recorded in gallons per day.

Table 2 presents the monthly and annual effluent flow data, derived from summing daily recorded discharge volumes for each calendar month. Daily flow values are detailed in Appendix A. On July 3, 2025, the valve to the north pond was opened to improve hydraulic load distribution between the two ponds. With the valves to both ponds open, operational flow monitoring indicates that approximately 90% of the discharge continues to be directed to the south pond, with the remaining 10% diverted to the north pond.

Table 2. Cold Waste Ponds flow summaries.

Month	North Pond (MU-161-01) (MG)[a]	South Pond (MU-161-02) (MG)	Monthly Total Combined (MG)
November 2024	0.00	17.83	17.83
December 2024	0.00	10.46	10.46
January 2025	0.00	12.54	12.54
February 2025	0.00	18.09	18.09
March 2025	0.00	13.08	13.08
April 2025	0.00	17.41	17.41
May 2025	0.00	11.92	11.92
June 2025	0.00	7.28	7.28
July 2025	1.10	10.34	11.44
August 2025	0.78	7.06	7.85
September 2025	0.64	5.74	6.38
October 2025	1.42	12.78	14.20
Annual Total[b]	**3.95**	**144.53**	**148.48**

a. MG-million gallons. Reuse Permit I-161-03 requires monthly flow volumes. Values are reported to the nearest 0.00 MG.

b. The sum of monthly totals listed herein may not equal actual annual totals listed due to rounding.

Flows to the CWP are a combination of effluent from continuous and intermittent processes but the total volume to the CWP tends to be highly dependent on the ATR operation including the number of days operated, days in outages, and operating power. Typically, when the ATR operates, daily flows to the CWP trend lower due to a continuous source of noncontact once through cooling water from the building that is valved to the ATR cooling tower as makeup water and evaporated with relatively low flow from the cooling tower blowdown. During the ATR outages, daily flows trend higher as the same continuous source of water, typically most of the flow rate, is valved to the cold waste collection system (i.e., the CWP).

Section 4.2 of the permit requires that the total annual volume discharged to the North and South Ponds shall not exceed a 5-year moving annual average of 300 million gallons (MG)/year and that no single year shall exceed 375 MG/year. The annual hydraulic loading data from previous reporting years are used to determine compliance with the moving annual average. Figure 5 shows that the 5-year moving average is below the permit limit.

For permit year 2025, the estimated total volume discharged to the North and South Ponds was 3.95 MG and 144.53 MG, respectively. The total annual volume discharged to both ponds was 148.48 MG which is significantly less than the maximum Reuse Permit annual limit of 375 MG.

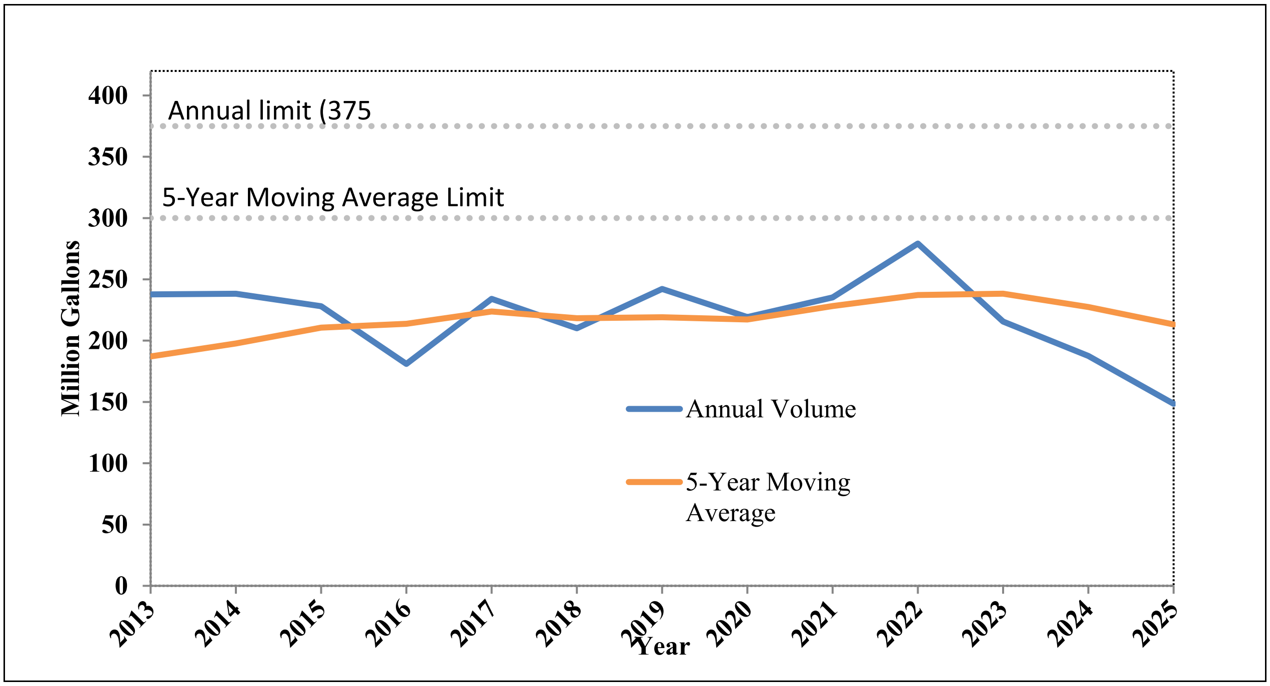

Figure 5. Advanced Test Reactor Complex Cold Waste Ponds wastewater 5-year moving average.

4. GROUNDWATER MONITORING

4.1 Sampling Program

The Reuse Permit requires sampling at seven INL groundwater wells collected twice annually, in April/May and September/October. Project specific sampling and analysis plans and procedures that govern sampling activities and quality control protocols directed BEA personnel during groundwater sampling activities. All groundwater samples were collected and analyzed as required during the permit year, November 1, 2024–October 31, 2025. All samples were collected according to established programmatic sampling procedures.

4.2 Sampling and Analytical Methods

Field parameters including temperature, pH, and electrical conductivity were measured at the time of sample collection by BEA personnel using instruments that were calibrated to set standards within 24 hours of sample collection. All other permit-required groundwater samples were submitted under full chain-of-custody for analysis to GEL in Charleston, South Carolina. Groundwater wells were purged for at least three casing volumes prior to sampling. Static water table elevations and depths to the water were measured prior to well purging.

Analytical methods specified in 40 CFR 141, "National Primary Drinking Water Regulations;" 40 CFR 143, "Other Safe Drinking Water Regulations;" or 40 CFR 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants" were used for analysis of all permit required parameters.

4.3 Monitoring Wells

The permit requires that groundwater samples be collected from the following seven monitoring wells located around the facility in the Snake River Plain Aquifer, Figure 1.

- USGS-098 (GW-161-01, upgradient well)
- USGS-065 (GW-161-02, downgradient well)
- USGS-076 (GW-161-04, down/crossgradient well)
- TRA-08 (GW-161-05, downgradient well)
- Middle-1823 (GW-161-06, downgradient well)
- USGS-058 (GW-161-07, upgradient well)
- USGS-136 (GW-161-08, downgradient well).

All seven wells are Reuse Permit compliance points used to measure potential impacts to groundwater from the ATR Complex CWP.

4.4 Groundwater Monitoring Results

Results of the 2025 groundwater monitoring activities are presented in Table 3. Total iron is not required by the permit; however, total and filtered metals were analyzed for all wells. The permit only requires analysis of total dissolved solids and nitrite+nitrate-nitrogen in USGS-058; however, all analytes were sampled and analyzed from all permit wells to support observational monitoring and provide consistent evaluation of all analytes from all wells.

The groundwater data packages were submitted for data validation by an independent contractor to evaluate the useability of the analytical results. Validation qualifier flags are assigned to data results merely to serve as caveats to data users. Several groundwater sample results were qualified during data validation. The J-qualified results are definitive data that are considered estimates that may be inaccurate or imprecise, typically due to a laboratory quality control parameter outside of an acceptable range. These validation reports may be available upon request for further review. These qualified values are presented below in Table 3.

During the 2025 reporting year, concentrations of all permit-required analytes remained below their respective groundwater quality standards as defined in IDAPA 58.01.11, with the exception of chromium in well USGS-065. At this location, total and filtered chromium concentrations from both sampling events exceeded the Primary Constituent Standard (PCS). While the total iron result for April 23, 2025 exceeded the Secondary Constituent Standard (SCS), the permit only requires monitoring of filtered iron and the filtered result is well below the SCS. Consistent with historical trends, USGS-065 exhibited the highest concentrations of chromium, sulfate, and total dissolved solids (TDS) among all monitored wells. A detailed trend analysis for sulfate and TDS is provided in Section 6.1. Other constituents also continue to show elevated levels at USGS-065, in line with previous monitoring results. Additional discussion of specific analytes is included in Section 6.

Table 3. Advanced Test Reactor Complex Cold Waste Ponds aquifer monitoring well data for the 2025 reporting year.

WELL NAME	**USGS-098 (GW-161-01)**		**USGS-065 (GW-161-02)**		**USGS-076 (GW-161-04)**		**TRA-08 (GW-161-05)**		**Middle-1823 (GW-161-06)**		**USGS-136 (GW-101-08)**		**USGS-058 (GW-161-07)**		**PCS/SCS[a]**
Sample date	4/22/25	9/24/25	4/23/25	9/25/25	4/24/25	9/30/25	4/28/25	9/29/25	4/23/25	9/25/25	4/28/25	9/29/25	4/22/25	9/24/25	
Water table depth (ft below ground surface)	431.43	432.43	477.47	478.52	486.23	487.38	492.11	493.24	495.86	497.08	491.68	492.77	474.2	475.49	NA[b]
Water table elevation (above mean sea level in ft)[c]	4457.78	4456.78	4451.1	4450.05	4446.98	4445.83	4446.95	4445.82	4447.01	4445.79	4447.05	4445.96	4447.69	4446.4	NA
Borehole correction factor (ft)[d]	2.53	2.53	NA	NA	NA	NA	0.63	0.63	NA	NA	0.22	0.22	NA	NA	NA
Temperature (F)	54.3	54.9	56.8	56.5	54.7	56.3	54.1	56.1	56.5	57.9	55.9	58.5	55.2	56.7	NA
pH (s.u.)	7.53	7.62	7.61	7.41	7.68	7.86	7.39	7.67	7.49	7.73	7.6	7.6	7.64	7.63	6.5 to 8.5 (SCS)
Electrical conductivity (µS/cm)	439	431	598	589	427	422	424	416	429	418	427	423	433	422	NA
Nitrite+nitrate, as nitrogen (mg/L)	1.39	1.4	1.48	1.45	1.17J[e] (1.12J)[f]	1.19	1.1	1.13	1.05	1.07	1.25	1.36	1.28	1.16	10 (PCS)
Sulfate (mg/L)	22.7	21.5	131	130	33.4 (33.3)	32	40.4	38.2	30.2	29.7	26.9	26.8	30.7	27.3	250 (SCS)
Total dissolved solids (mg/L)	243	210	379	356	229 (238)	241	234	208	223	196	234	253	235	203	500 (SCS)
Chromium, total (mg/L)	0.00533	0.00789	0.114	0.12	0.0126J (0.0126J)	0.0146	0.0206J	0.0187	0.0104J	0.0123	0.014J	0.0135	0.01	0.0114	0.1 (PCS)
Chromium, filtered (mg/L)	0.00509	0.00714	0.111	0.117	0.0129J (0.0128J)	0.0146	0.0203J	0.0178	0.0103J	0.0108	0.013J	0.0124	0.0933	0.0113	0.1 (PCS)
Iron, total[g] (mg/L)	0.03U[h]	0.282	0.362	0.0514	0.03U (0.03U)	0.03U	0.131	0.0323	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.3 (SCS)
Iron, filtered (mg/L)	0.03U	0.03U	0.03U	0.0387	0.030U (0.030U)	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.03U	0.3 (SCS)

a. Primary constituent standards (PCS) and secondary constituent standards (SCS) in groundwater referenced in the Ground Water Quality Rule, IDAPA 58.01.11.200.01.a and b.

b. NA - Not applicable.

c. Elevation data provided using the North American Vertical Datum of 1988 (NAVD 88).

d. Borehole correction factors determined from gyroscopic surveys attempt to reconcile discrepancies in the water level measurements from well deviations.

e. J flag indicates the associated value is an estimate and may be inaccurate or imprecise.

f. Results shown in parenthesis are from the field duplicate samples.

g. The parameter is not required by the Reuse Permit. However, to ensure all permit required sampling is performed as required, and to support observational monitoring and consistent evaluation, all analytes were sampled semi-annually from all wells.

h. U qualification indicates the analyte was not detected above the instrument detection limit or the analyte was detected at or above the applicable detection limit, but the value is not more than 5 times the highest positive amount in any laboratory blank and is U qualified as a result of data validation.

4.5 Water Table Information

The measured groundwater elevations from 2013 to 2025 are shown in Figure 6. The depth to water and water table elevations for the April and September 2025 sampling events are shown in Figure 7 and Figure 8, respectively. These water table measurements were used to infer the general groundwater flow direction in the vicinity of the ATR Complex which are presented on the water table figures.

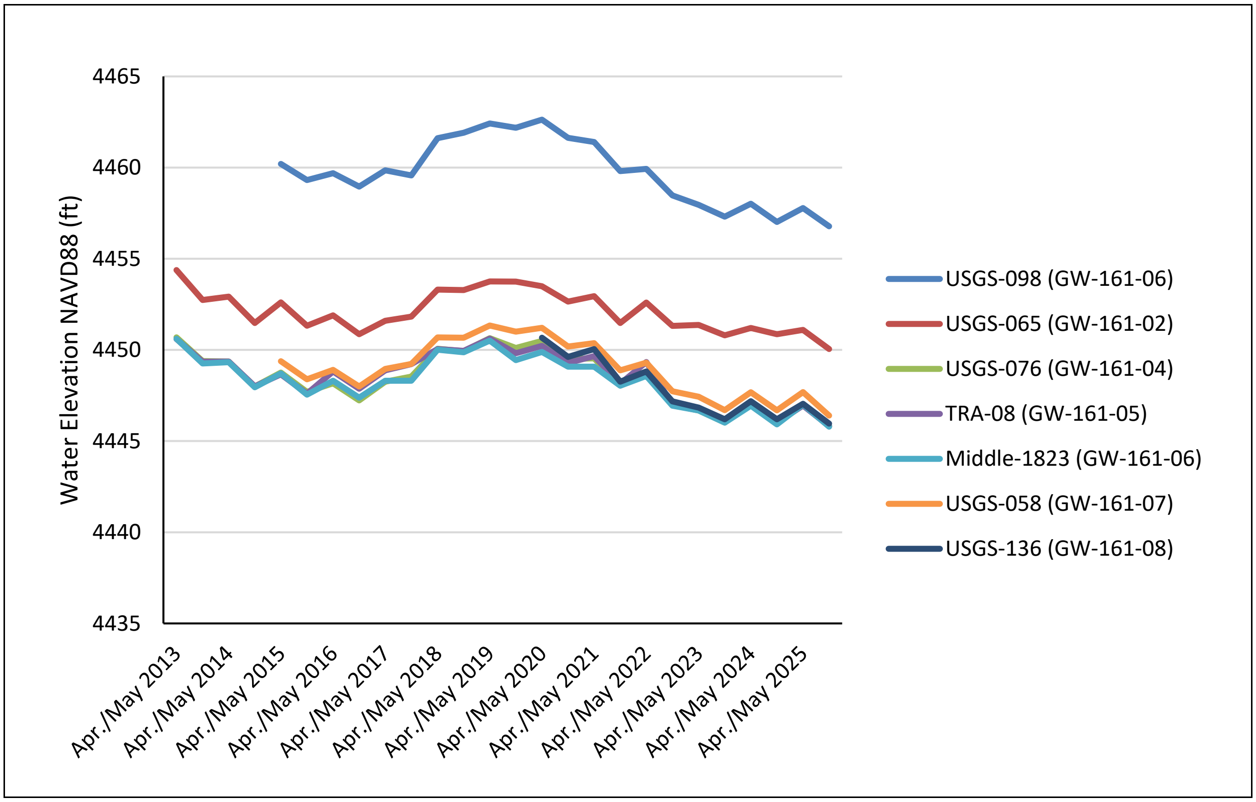

Figure 6. Historical groundwater elevations 2013-2025.

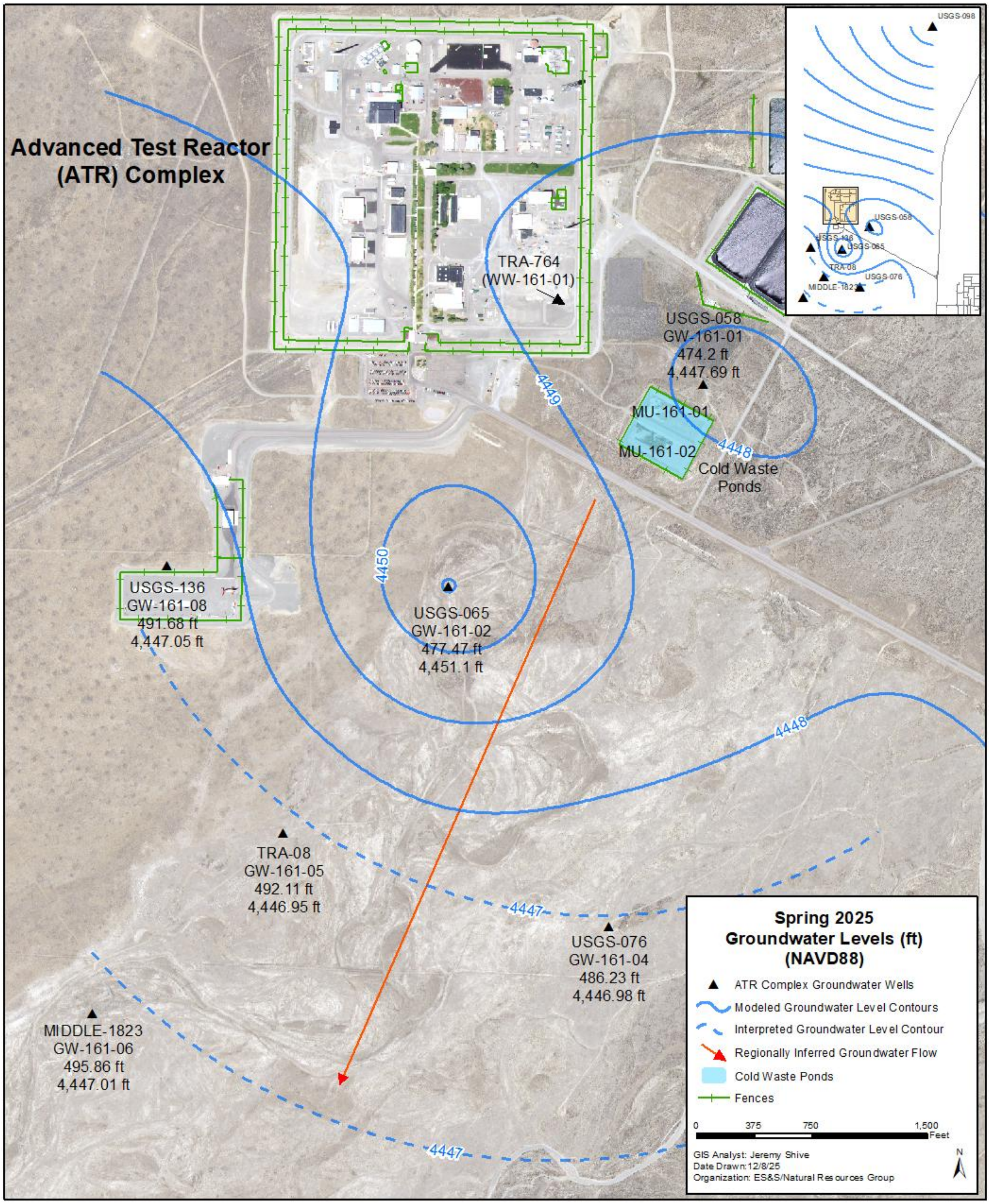

Figure 7. Map showing groundwater depths and elevations based on the Spring 2025 water level measurements.

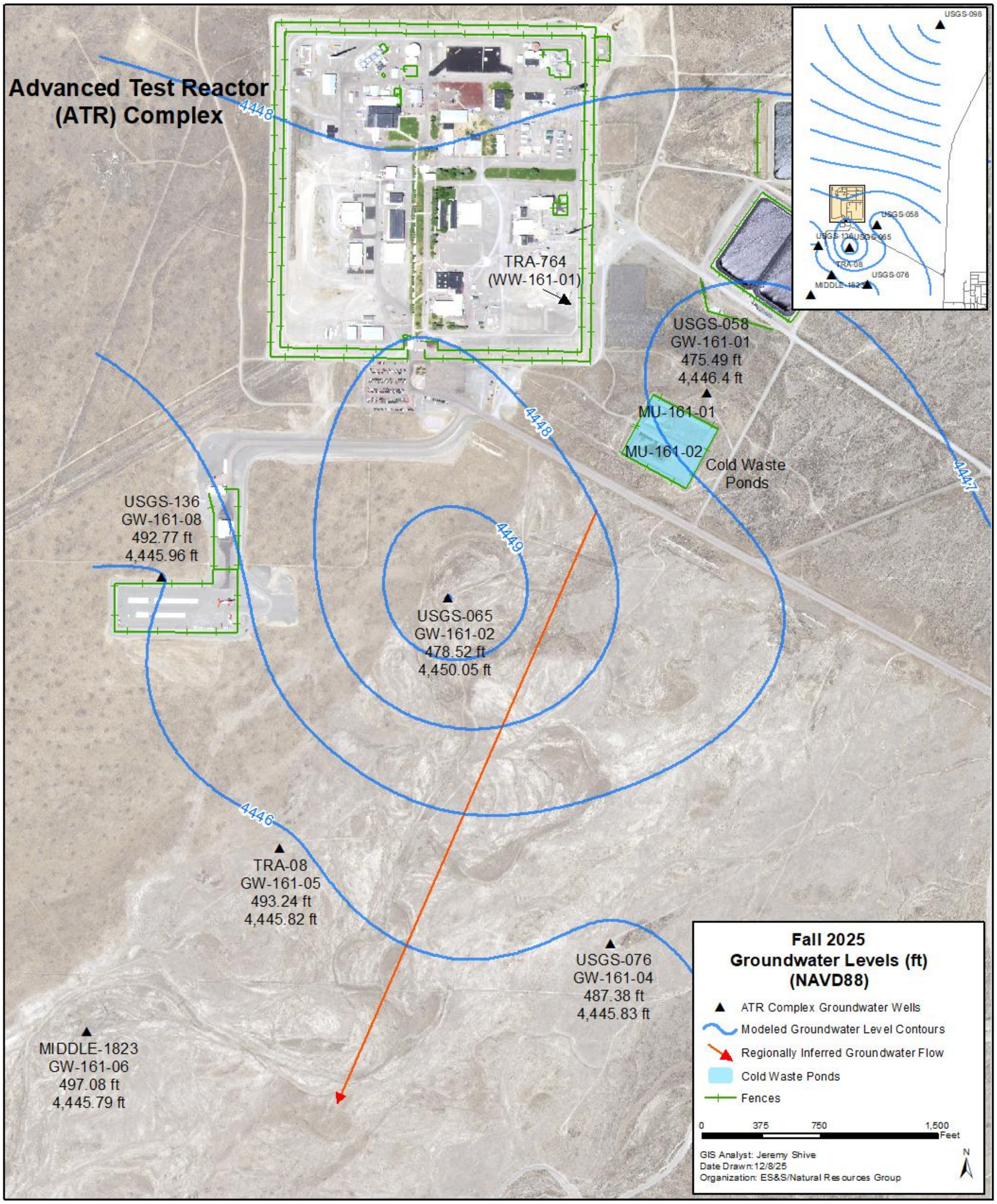

Figure 8. Map showing groundwater depths and elevations based on the Fall 2025 water level measurements.

5. PERMIT YEAR SUMMARIES

5.1 Status of Permit Required Compliance Activities

The Reuse Permit, Section 3, identifies the following three compliance activities pertinent to the 2020 to 2029 reporting years:

- **Compliance Activity CA-161-01**– Submit for review and approval a Plan of Operation (PO) that reflects current operations and incorporates current permit requirements.

  The completion date stated within the Reuse Permit, Section 3, is within twelve (12) months of permit issuance. The PO was submitted to DEQ on October 29, 2020 (Miller, K. 2020). Approval of the PO from DEQ was received on November 18, 2020 (Groarke 2020a).

- **Compliance Activity CA-161-02–** Prepare and implement a QAPP that incorporates all monitoring and reporting required by permit.

  The completion date stated within the Reuse Permit, Section 3, is within six (6) months of permit issuance. The permittee is required to prepare and implement a QAPP that incorporates all monitoring and reporting required by the permit. A copy of the QAPP and a written notice that the QAPP has been implemented shall be provided to DEQ.

  A letter was submitted March 27, 2020 (Miller, T. 2020) transmitting the QAPP and implementation statement. Acceptance of the QAPP from DEQ was received on November 18, 2020 (Groarke 2020b).

- **Compliance Activity CA-161-03**–Schedule a pre-application workshop twelve (12) months prior to permit expiration.

  The current permit expires on October 29, 2029. Progress for this activity will commence closer to the expiration date. This activity has been added to INL's electronic tracking system referred to as the Commitment Tracking System (CTS). The CTS provides periodic reminders to those responsible for completing the action. The first reminder for this activity will occur October 29, 2028.

- **Compliance Activity CA-161-04**–Submit a complete renewal package to DEQ six (6) months prior to permit expiration.

  The current permit expires October 29, 2029. Progress on this activity will commence closer to the expiration date. This requirement has been added to CTS. The first reminder for this activity will occur April 28, 2028.

5.2 Issues/Noncompliance

During the 2025 permit year, a single noncompliance notification was made to DEQ. On September 11, 2025, at approximately 4:30 PM, a release of non-hazardous industrial wastewater (raw water used for cooling pumps) into the soil outside the permitted system was discovered during construction activities when a cracked cold waste pipe was uncovered. The leak, found while vacuuming soil for an unrelated project on an ATR complex electrical line, involved a pipe located six feet underground with no surface indications of leaking. The release, originating from the firewater pump cooling system in TRA-688 and containing no hazardous constituents, occurred between the TRA-1718 asphalt pad and the TRA-633 building. INL determined that this non-hazardous release did not pose a risk to public health or the environment.

The period of noncompliance was undetermined as there was no evidence indicating when the cold waste pipe initially cracked and began leaking. The cold waste system, which is gravity drained, only leaked when the firewater pumps in TRA-688 were in operation, typically during monthly firewater testing. The pipe was repaired and patched, with ATR maintenance performing the necessary recovery actions.

5.3 Department of Environmental Quality Annual Inspection

During the 2025 permit year, no inspections were conducted by DEQ. The most recent inspection of facilities and equipment by DEQ associated with Reuse Permit I-161-03 occurred April 10, 2024. During the inspection, equipment and facilities were toured including the sample compositor and flowmeter in TRA-764, North and South Cold Waste Ponds (MU-161-01, MU-161-02), and groundwater monitoring well USGS-058 (GW-161-07). The inspection concluded with no findings or non-compliances and the DEQ inspection report was received April 18, 2024 (Ayers 2024).

6. ENVIRONMENTAL IMPACTS

The operation of the CWP returns a significant portion of the recycled water to the aquifer. The Reuse Permit allows 300 MG/year as a 5-year annual average, not to exceed 375 MG annually. The total volume discharged to the CWP for this period (November 1, 2024–October 31, 2025) was 148.48 MG. No runoff occurred from the application area.

Sulfate and TDS in the effluent have the potential to impact groundwater. Sulfate is highly soluble and tends to move at a similar velocity as the groundwater (DEQ 2007). The monitoring of sulfate and TDS in USGS-098 and USGS-058 began in 2015 with the issuance of Reuse Permit I-161-02 and the requirement continued with the issuance of Reuse Permit I-161-03.

Figure 9 and Figure 10 show the sulfate and TDS concentrations in samples collected from the Reuse Permit CWP monitoring wells. The closest downgradient well to the CWP, USGS-065, continues to have the highest sulfate concentrations of the seven monitoring wells as shown in Figure 9. It continues to appear that sulfate and TDS quickly dissipate with distance from the CWP as downgradient concentrations are similar to the concentrations in the up/cross gradient wells. Analytical results for all wells are displayed in Table 3 and well locations are shown in figures seven and eight. Note that for the instances where a duplicate sample was collected, the original sample was used in generating the graphs.

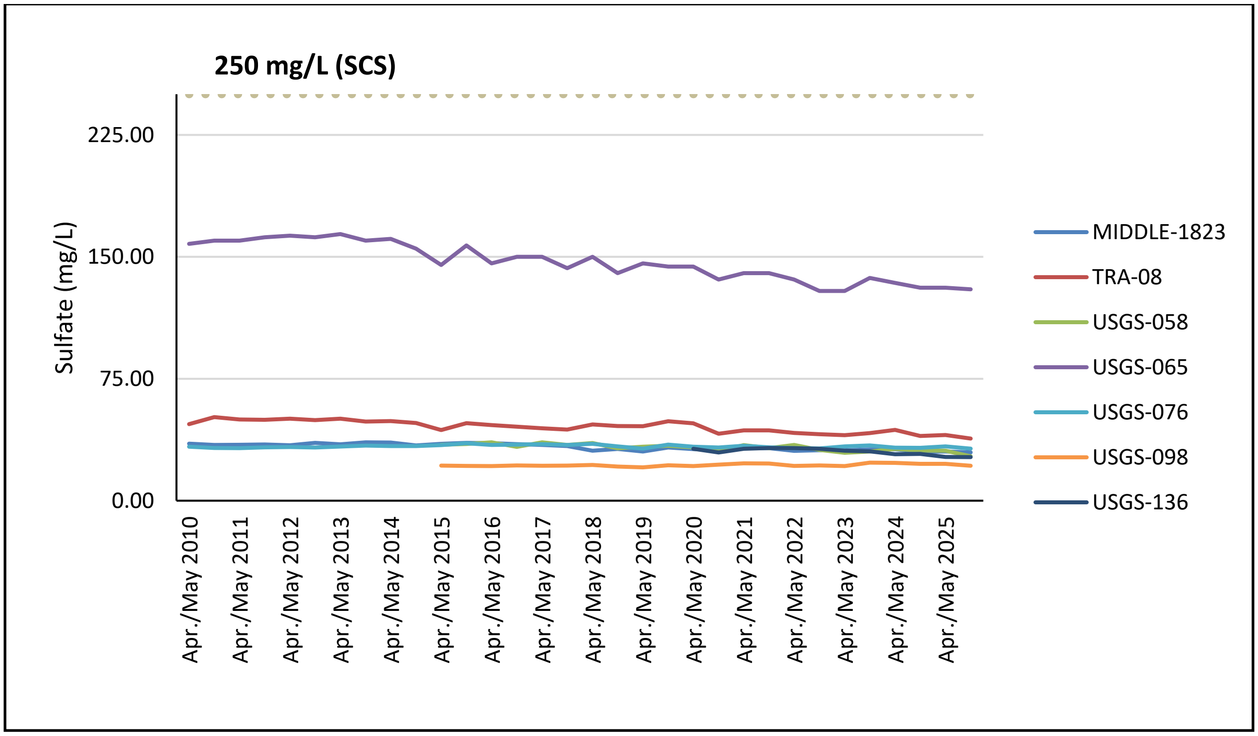

Figure 9. Sulfate concentrations in the Cold Waste Ponds monitoring wells.

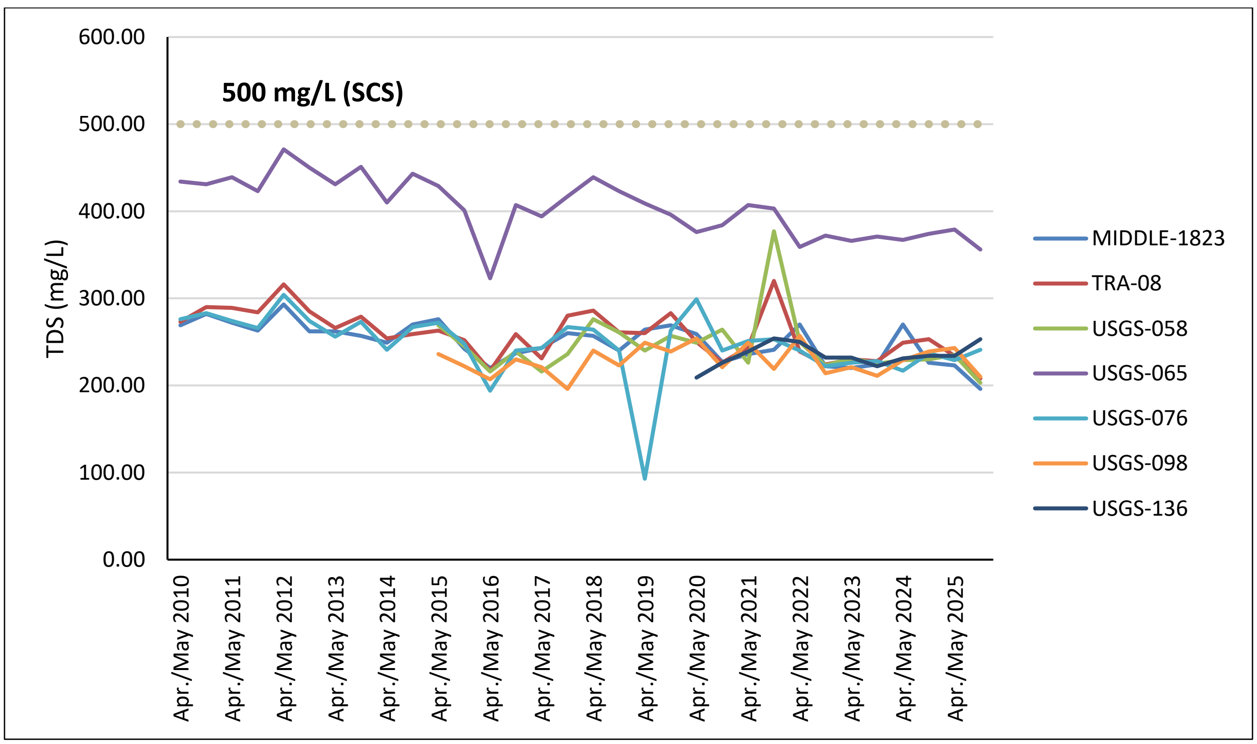

Figure 10. Total dissolved solids concentrations in the Cold Waste Ponds monitoring wells.

6.1 Trend Analysis

A Mann-Kendall test was performed on several of the groundwater monitoring constituents using data from the last five years, 2021 to 2025. The "State of Idaho Department of Environmental Quality Remediation Program Mann-Kendall Statistical Test, Version 2" was used to perform the analysis.

The results of the Mann-Kendall test for sulfate, Table 4, showed decreasing trends at USGS-065, TRA-08, Middle-1823, and USGS-136 at both the 90% and 80% confidence. No trend was observed in USGS-098 and USGS-076.

Table 4. Mann-Kendall trend results for sulfate in the groundwater monitoring wells.

Well Name	# Samples	Trend ≥ 80% Confidence	Trend ≥ 90% Confidence	Stability Check (if no trend at 80% confidence)
USGS-098	10	No Trend	No Trend	Stable
USGS-065	10	Decreasing	Decreasing	NA[a]
USGS-076	10	No Trend	No Trend	Stable
TRA-08	10	Decreasing	Decreasing	NA
Middle-1823	10	Decreasing	Decreasing	NA
USGS-058	10	Decreasing	Decreasing	NA
USGS-136	10	Decreasing	Decreasing	NA

a. Not applicable.

The results of the Mann-Kendall test for TDS, Table 5, showed a decreasing trend in USGS-065 for both the 80% and 90% confidence level. A decreasing trend was also observed at TRA-08 and Middle-1823 at the 80% confidence level. No trend was observed in USGS-098, USGS-076, USGS-058, and USGS-136.

Table 5. Mann-Kendall trend results for TDS in the groundwater monitoring wells.

Well Name	# Samples	Trend ≥ 80% Confidence	Trend ≥ 90% Confidence	Stability Check (if no trend at 80% confidence)
USGS-098	10	No Trend	No Trend	Stable
USGS-065	10	Decreasing	Decreasing	NA[a]
USGS-076	10	No Trend	No Trend	Stable
TRA-08	10	Decreasing	No Trend	NA
Middle-1823	10	Decreasing	No Trend	NA
USGS-058	10	No Trend	No Trend	Stable
USGS-136	10	No Trend	No Trend	Stable

a. Not applicable.

A Mann-Kendall test was conducted for dissolved (filtered) chromium, Table 6, per DEQ guidance to "closely monitor filtered chromium concentrations in groundwater" (John 2020, John 2021, John 2022). The results of the Mann-Kendall test for dissolved chromium showed an increasing trend in USGS-065, Middle-1823, and USGS-076 for both the 80% and 90% confidence level. The analysis showed no trend for both the 80% and 90% confidence level for all other wells. These trends are shown in Figure 11.

Table 6. Mann-Kendall trend results for dissolved (filtered) chromium in the groundwater monitoring wells.

Well Name	# Samples	Trend ≥ 80% Confidence	Trend ≥ 90% Confidence	Stability Check (if no trend at 80% confidence)
USGS-098	10	No Trend	No Trend	Stable
USGS-065	10	Increasing	Increasing	NA[a]
USGS-076	10	Increasing	Increasing	NA
TRA-08	10	No Trend	No Trend	Stable
Middle-1823	10	Increasing	Increasing	NA
USGS-058	10	No Trend	No Trend	Stable
USGS-136	10	No Trend	No Trend	Stable

a. Not applicable.

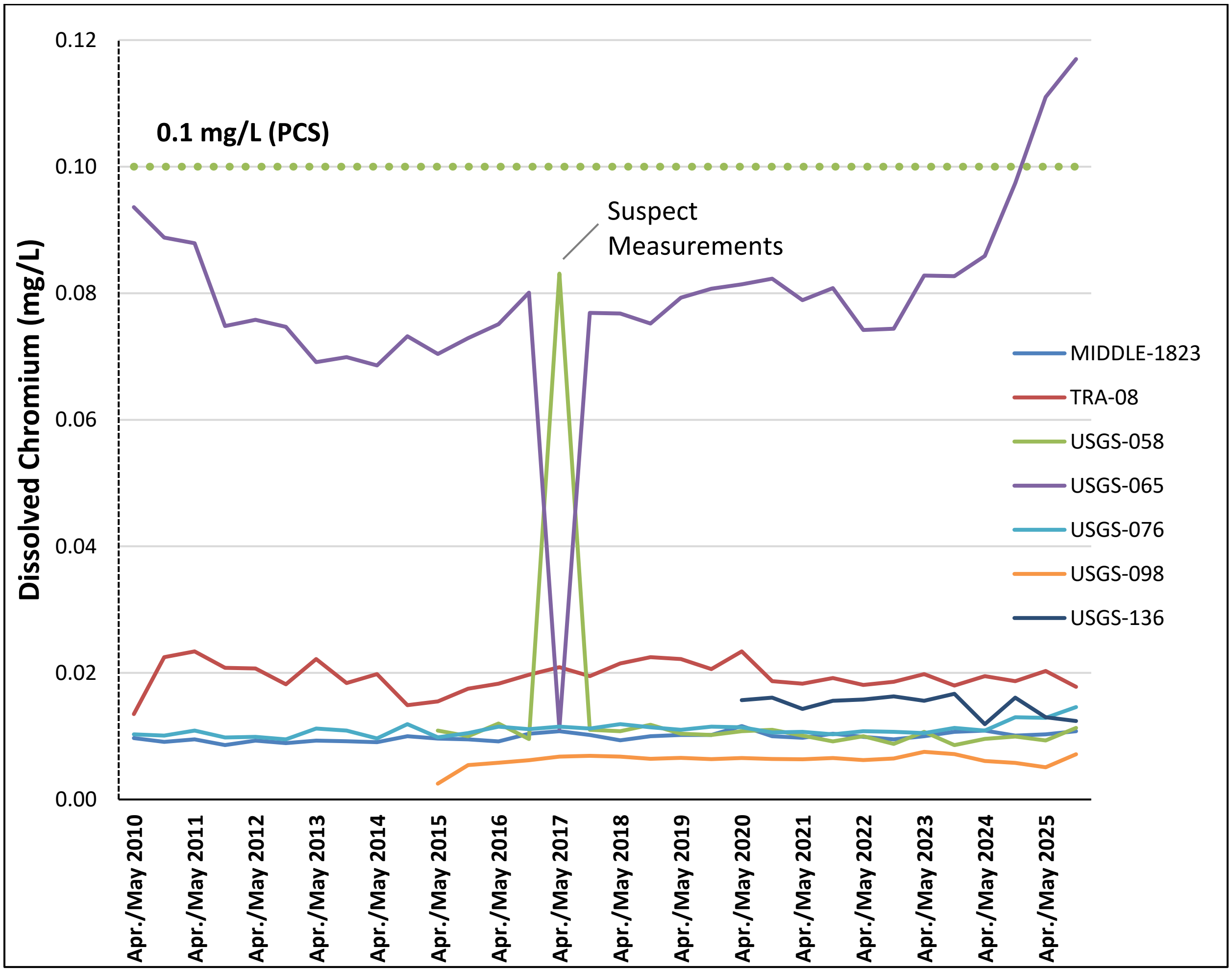

Figure 11. Dissolved chromium concentrations in the Cold Waste Ponds monitoring wells.

The effluent concentration of chromium is significantly lower than the levels observed in the USGS-065 as shown in Figure 12. This difference suggests that the source of the elevated chromium levels is unlikely to be a result of current CWP effluent discharge but rather due to other factors, such as the historical contamination being addressed under CERCLA. Additional details regarding the historical causes and trends of chromium are provided in the 2019 permit application (Miller 2019a, Miller 2019b), DEQ's staff analysis (John 2019), and the Annual Groundwater Monitoring Status Report for Waste Area Group 2 for Fiscal Year 2025 (DOE-ID 2025). As shown in Figures 9, 10, and 11, sulfate, TDS, and chromium concentrations in the aquifer dissipate with distance from the CWP with concentrations in monitoring wells TRA-08 and Middle-1823 well below the primary and secondary constituent standards. Chromium concentrations will continue to be monitored closely in the effluent and all permit wells.

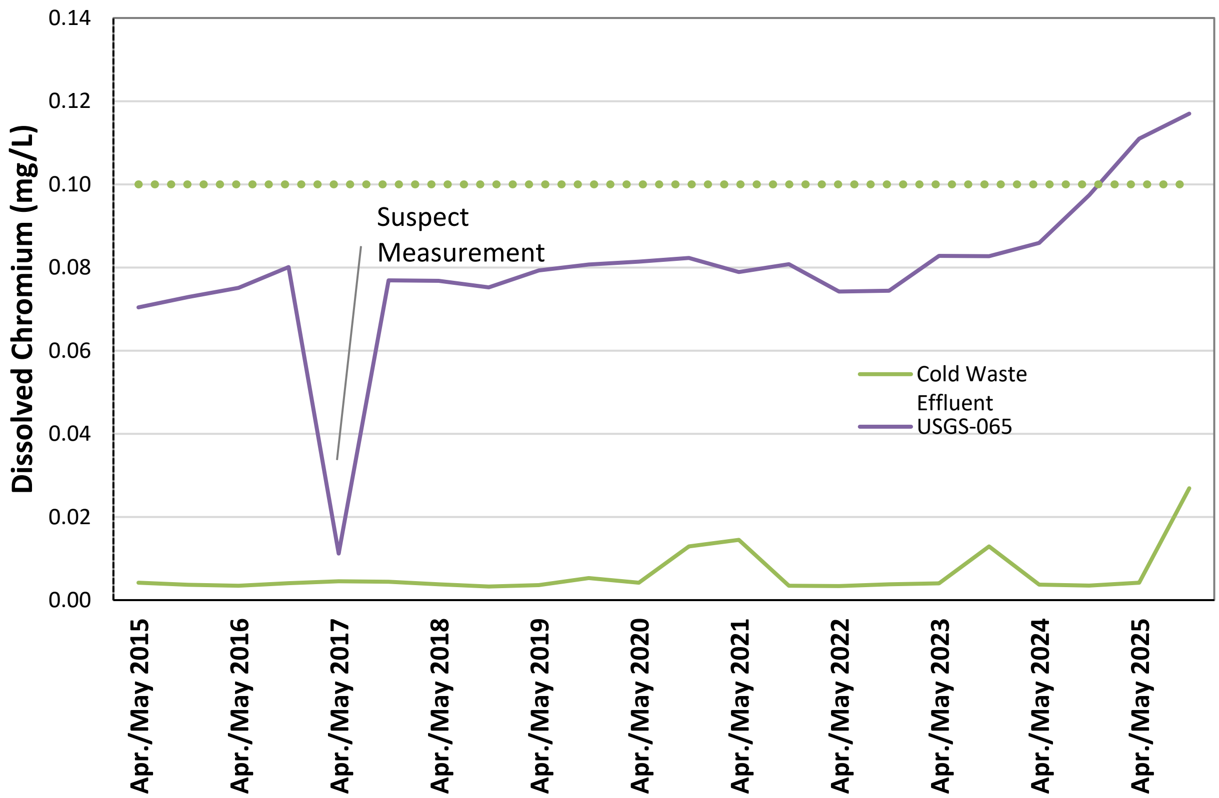

Figure 12. Dissolved chromium concentrations in the cold waste effluent and monitoring well USGS-065.

A Mann-Kendall test was conducted for nitrogen (nitrate+nitrite as nitrogen), Table 7. The results of the Mann-Kendall test for nitrate+nitrite as nitrogen showed an increasing trend in up-gradient wells USGS-098 and USGS-058 for both the 80% and 90% confidence level. An increasing trend was also observed at USGS-136 at the 80% confidence level. No trend was shown for both the 80% and 90% confidence level for USGS-076, TRA-08, and Middle-1823. A decreasing trend was shown in USGS-065. These trends are shown in Figure 11.

Table 7. Mann-Kendall trend analysis results for nitrogen (nitrate+nitrite as nitrogen) in the groundwater monitoring wells.

Well Name	# Samples	Trend ≥ 80% Confidence	Trend ≥ 90% Confidence	Stability Check (if no trend at 80% confidence)
USGS-098	10	Increasing	Increasing	NA[a]
USGS-065	10	Decreasing	Decreasing	NA
USGS-076	10	No Trend	No Trend	Stable
TRA-08	10	No Trend	No Trend	Stable
Middle-1823	10	No Trend	No Trend	Stable
USGS-058	10	Increasing	Increasing	NA
USGS-136	10	Increasing	No Trend	NA

a. Not applicable.

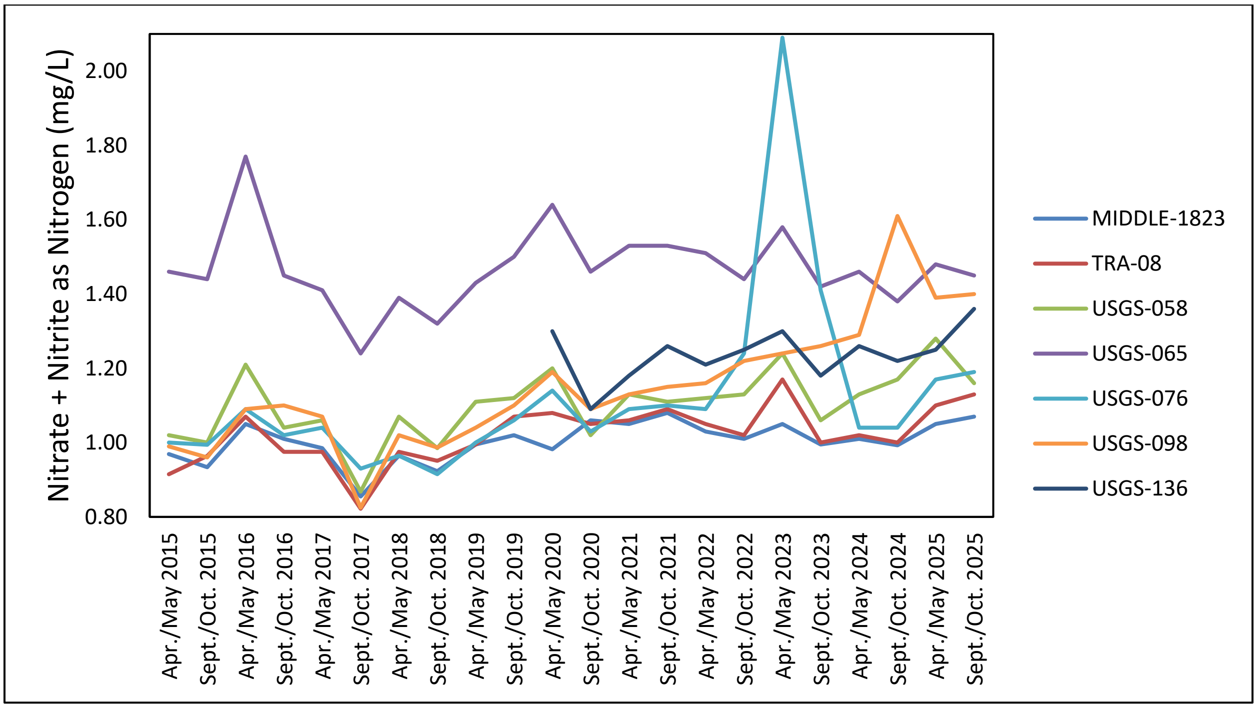

Figure 13. Nitrate+nitrite as nitrogen concentrations in the Cold Waste Ponds monitoring wells.

7. REFERENCES

40 CFR 136, “Guidelines Establishing Test Procedures for the Analysis of Pollutants,” *Code of Federal Regulations*, Office of the Federal Register, June 2024.

40 CFR 141, “National Primary Drinking Water Regulations,” *Code of Federal Regulations*, Office of the Federal Register, October 2024.

40 CFR 143, “National Secondary Drinking Water Regulations,” *Code of Federal Regulations*, Office of the Federal Register, July 2021.

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John, A., DEQ to K. Miller, INL, March 29, 2022, “RE: I-161-03 Idaho National Laboratory (INL) Advanced Test Reactor (ATR) Complex—Cold Waste Ponds, 2021 Annual Report Review,” CCN 251376.

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Appendix A
Daily Discharge Volumes to the Advanced Test Reactor Complex Cold Waste Ponds

Table 8. Daily discharge volumes to the ATR Complex Cold Waste Ponds for the 2025 reporting year.

Date	North Cell (gal)*	South Cell (gal)*
11/1/2024	OOS	635,230
11/2/2024	OOS	650,456
11/3/2024	OOS	658,690
11/4/2024	OOS	653,053
11/5/2024	OOS	668,201
11/6/2024	OOS	627,502
11/7/2024	OOS	761,073
11/8/2024	OOS	631,152
11/9/2024	OOS	679,976
11/10/2024	OOS	613,855
11/11/2024	OOS	684,597
11/12/2024	OOS	751,845
11/13/2024	OOS	773,304
11/14/2024	OOS	657,520
11/15/2024	OOS	719,476
11/16/2024	OOS	750,285
11/17/2024	OOS	694,472
11/18/2024	OOS	719,042
11/19/2024	OOS	773,408
11/20/2024	OOS	620,733
11/21/2024	OOS	717,160
11/22/2024	OOS	635,826
11/23/2024	OOS	321,749
11/24/2024	OOS	347,207
11/25/2024	OOS	348,291
11/26/2024	OOS	366,227
11/27/2024	OOS	329,512
11/28/2024	OOS	374,500
11/29/2024	OOS	367,496
11/30/2024	OOS	298,391
12/1/2024	OOS	342,785
12/2/2024	OOS	356,516
12/3/2024	OOS	328,000
12/4/2024	OOS	355,600

Date	North Cell (gal)*	South Cell (gal)*
12/5/2024	OOS	336,247
12/6/2024	OOS	340,728
12/7/2024	OOS	307,532
12/8/2024	OOS	369,860
12/9/2024	OOS	345,263
12/10/2024	OOS	365,270
12/11/2024	OOS	329,156
12/12/2024	OOS	341,444
12/13/2024	OOS	343,798
12/14/2024	OOS	387,588
12/15/2024	OOS	288,482
12/16/2024	OOS	325,732
12/17/2024	OOS	316,775
12/18/2024	OOS	337,024
12/19/2024	OOS	343,551
12/20/2024	OOS	331,581
12/21/2024	OOS	347,069
12/22/2024	OOS	296,803
12/23/2024	OOS	346,447
12/24/2024	OOS	291,650
12/25/2024	OOS	330,122
12/26/2024	OOS	347,125
12/27/2024	OOS	337,984
12/28/2024	OOS	356,050
12/29/2024	OOS	336,249
12/30/2024	OOS	343,313
12/31/2024	OOS	338,347
1/1/2025	OOS	330,069
1/2/2025	OOS	332,389
1/3/2025	OOS	383,595
1/4/2025	OOS	309,252
1/5/2025	OOS	299,798
1/6/2025	OOS	350,507
1/7/2025	OOS	322,863

Date	North Cell (gal)*	South Cell (gal)*
1/8/2025	OOS	348,537
1/9/2025	OOS	333,350
1/10/2025	OOS	315,401
1/11/2025	OOS	333,536
1/12/2025	OOS	391,696
1/13/2025	OOS	302,454
1/14/2025	OOS	368,882
1/15/2025	OOS	340,031
1/16/2025	OOS	331,827
1/17/2025	OOS	339,254
1/18/2025	OOS	334,491
1/19/2025	OOS	345,204
1/20/2025	OOS	325,859
1/21/2025	OOS	317,865
1/22/2025	OOS	500,084
1/23/2025	OOS	429,119
1/24/2025	OOS	341,137
1/25/2025	OOS	288,632
1/26/2025	OOS	691,678
1/27/2025	OOS	643,300
1/28/2025	OOS	684,655
1/29/2025	OOS	666,335
1/30/2025	OOS	668,975
1/31/2025	OOS	565,442
2/1/2025	OOS	752,360
2/2/2025	OOS	749,991
2/3/2025	OOS	676,242
2/4/2025	OOS	712,579
2/5/2025	OOS	620,150
2/6/2025	OOS	704,195
2/7/2025	OOS	673,427
2/8/2025	OOS	777,893
2/9/2025	OOS	769,688
2/10/2025	OOS	563,568
2/11/2025	OOS	669,972
2/12/2025	OOS	660,528
2/13/2025	OOS	628,800
2/14/2025	OOS	665,647
2/15/2025	OOS	655,953
2/16/2025	OOS	684,305

Date	North Cell (gal)*	South Cell (gal)*
2/17/2025	OOS	682,295
2/18/2025	OOS	628,700
2/19/2025	OOS	693,700
2/20/2025	OOS	679,919
2/21/2025	OOS	612,012
2/22/2025	OOS	702,574
2/23/2025	OOS	677,100
2/24/2025	OOS	636,123
2/25/2025	OOS	420,172
2/26/2025	OOS	433,450
2/27/2025	OOS	463,991
2/28/2025	OOS	493,402
3/1/2025	OOS	354,846
3/2/2025	OOS	392,066
3/3/2025	OOS	299,533
3/4/2025	OOS	661,512
3/5/2025	OOS	705,551
3/6/2025	OOS	625,749
3/7/2025	OOS	730,621
3/8/2025	OOS	553,258
3/9/2025	OOS	630,004
3/10/2025	OOS	565,817
3/11/2025	OOS	493,984
3/12/2025	OOS	501,916
3/13/2025	OOS	466,877
3/14/2025	OOS	343,569
3/15/2025	OOS	415,571
3/16/2025	OOS	411,606
3/17/2025	OOS	318,567
3/18/2025	OOS	354,367
3/19/2025	OOS	480,531
3/20/2025	OOS	520,512
3/21/2025	OOS	551,579
3/22/2025	OOS	425,221
3/23/2025	OOS	339,382
3/24/2025	OOS	324,946
3/25/2025	OOS	239,172
3/26/2025	OOS	249,113
3/27/2025	OOS	198,487
3/28/2025	OOS	233,866

Date	North Cell (gal)*	South Cell (gal)*
3/29/2025	OOS	222,968
3/30/2025	OOS	227,430
3/31/2025	OOS	244,036
4/1/2025	OOS	424,554
4/2/2025	OOS	488,893
4/3/2025	OOS	585,462
4/4/2025	OOS	615,162
4/5/2025	OOS	687,323
4/6/2025	OOS	536,611
4/7/2025	OOS	559,876
4/8/2025	OOS	616,969
4/9/2025	OOS	652,135
4/10/2025	OOS	642,836
4/11/2025	OOS	561,856
4/12/2025	OOS	598,723
4/13/2025	OOS	541,735
4/14/2025	OOS	606,016
4/15/2025	OOS	586,298
4/16/2025	OOS	518,391
4/17/2025	OOS	606,500
4/18/2025	OOS	609,985
4/19/2025	OOS	594,786
4/20/2025	OOS	614,460
4/21/2025	OOS	594,143
4/22/2025	OOS	579,160
4/23/2025	OOS	580,833
4/24/2025	OOS	723,326
4/25/2025	OOS	507,418
4/26/2025	OOS	592,013
4/27/2025	OOS	545,899
4/28/2025	OOS	507,408
4/29/2025	OOS	543,129
4/30/2025	OOS	584,700
5/1/2025	OOS	630,893
5/2/2025	OOS	579,507
5/3/2025	OOS	586,832
5/4/2025	OOS	568,752
5/5/2025	OOS	588,757
5/6/2025	OOS	627,759
5/7/2025	OOS	331,431

Date	North Cell (gal)*	South Cell (gal)*
5/8/2025	OOS	263,169
5/9/2025	OOS	279,355
5/10/2025	OOS	268,726
5/11/2025	OOS	256,763
5/12/2025	OOS	264,956
5/13/2025	OOS	271,731
5/14/2025	OOS	271,270
5/15/2025	OOS	289,199
5/16/2025	OOS	300,360
5/17/2025	OOS	259,340
5/18/2025	OOS	280,150
5/19/2025	OOS	265,550
5/20/2025	OOS	308,675
5/21/2025	OOS	291,475
5/22/2025	OOS	282,545
5/23/2025	OOS	247,648
5/24/2025	OOS	300,074
5/25/2025	OOS	263,846
5/26/2025	OOS	287,231
5/27/2025	OOS	308,017
5/28/2025	OOS	474,696
5/29/2025	OOS	647,194
5/30/2025	OOS	723,829
5/31/2025	OOS	596,544
6/1/2025	OOS	372,965
6/2/2025	OOS	230,610
6/3/2025	OOS	246,615
6/4/2025	OOS	324,709
6/5/2025	OOS	304,527
6/6/2025	OOS	206,750
6/7/2025	OOS	180,250
6/8/2025	OOS	219,800
6/9/2025	OOS	205,200
6/10/2025	OOS	206,162
6/11/2025	OOS	206,587
6/12/2025	OOS	214,506
6/13/2025	OOS	247,565
6/14/2025	OOS	218,997
6/15/2025	OOS	224,809
6/16/2025	OOS	216,557

Date	North Cell (gal)*	South Cell (gal)*
6/17/2025	OOS	358,923
6/18/2025	OOS	475,502
6/19/2025	OOS	477,792
6/20/2025	OOS	147,000
6/21/2025	OOS	180,992
6/22/2025	OOS	209,629
6/23/2025	OOS	186,713
6/24/2025	OOS	195,435
6/25/2025	OOS	161,574
6/26/2025	OOS	210,657
6/27/2025	OOS	249,800
6/28/2025	OOS	199,435
6/29/2025	OOS	200,844
6/30/2025	OOS	202,673
7/1/2025	OOS	206,850
7/2/2025	OOS	201,104
7/3/2025	18,829	169,465
7/4/2025	18,995	170,955
7/5/2025	24,629	221,659
7/6/2025	19,761	177,851
7/7/2025	21,182	190,636
7/8/2025	22,973	206,756
7/9/2025	18,032	162,292
7/10/2025	22,654	203,883
7/11/2025	18,996	170,962
7/12/2025	19,608	176,476
7/13/2025	35,250	317,250
7/14/2025	48,780	439,020
7/15/2025	48,536	436,824
7/16/2025	51,084	459,756
7/17/2025	48,810	439,293
7/18/2025	48,120	433,077
7/19/2025	49,919	449,273
7/20/2025	41,207	370,866
7/21/2025	48,712	438,408
7/22/2025	50,127	451,139
7/23/2025	49,295	443,655
7/24/2025	46,930	422,370
7/25/2025	49,546	445,915
7/26/2025	48,632	437,684

Date	North Cell (gal)*	South Cell (gal)*
7/27/2025	43,491	391,421
7/28/2025	44,642	401,778
7/29/2025	43,768	393,910
7/30/2025	49,773	447,957
7/31/2025	51,229	461,063
8/1/2025	47,969	431,723
8/2/2025	52,500	472,500
8/3/2025	41,583	374,251
8/4/2025	44,165	397,481
8/5/2025	17,074	153,670
8/6/2025	19,394	174,550
8/7/2025	19,203	172,828
8/8/2025	18,971	170,741
8/9/2025	19,499	175,490
8/10/2025	21,442	192,974
8/11/2025	18,308	164,776
8/12/2025	20,385	183,465
8/13/2025	20,197	181,775
8/14/2025	20,174	181,566
8/15/2025	20,244	182,193
8/16/2025	20,459	184,131
8/17/2025	18,283	164,545
8/18/2025	21,230	191,071
8/19/2025	19,813	178,319
8/20/2025	19,815	178,335
8/21/2025	22,184	199,656
8/22/2025	22,331	200,979
8/23/2025	20,798	187,184
8/24/2025	21,312	191,804
8/25/2025	50,677	456,096
8/26/2025	49,320	443,880
8/27/2025	19,716	177,447
8/28/2025	18,132	163,189
8/29/2025	19,920	179,276
8/30/2025	22,204	199,832
8/31/2025	17,258	155,323
9/1/2025	19,811	178,303
9/2/2025	21,792	196,124
9/3/2025	17,593	158,333
9/4/2025	21,780	196,020

Date	North Cell (gal)*	South Cell (gal)*
9/5/2025	21,590	194,306
9/6/2025	18,695	168,258
9/7/2025	22,268	200,412
9/8/2025	22,280	200,520
9/9/2025	22,015	198,135
9/10/2025	18,465	166,185
9/11/2025	22,531	202,775
9/12/2025	20,827	187,439
9/13/2025	24,868	223,809
9/14/2025	24,604	221,434
9/15/2025	24,052	216,464
9/16/2025	20,753	186,777
9/17/2025	25,077	225,694
9/18/2025	21,730	195,569
9/19/2025	22,392	201,529
9/20/2025	22,400	201,596
9/21/2025	22,029	198,260
9/22/2025	18,517	166,657
9/23/2025	19,982	179,838
9/24/2025	20,778	187,002
9/25/2025	21,117	190,053
9/26/2025	21,335	192,015
9/27/2025	18,484	166,360
9/28/2025	20,411	183,695
9/29/2025	19,445	175,005
9/30/2025	20,151	181,362
10/1/2025	18,452	166,064
10/2/2025	18,775	168,975
10/3/2025	17,401	156,612
10/4/2025	18,121	163,087
10/5/2025	19,130	172,170
10/6/2025	20,864	187,776
10/7/2025	72,337	651,034
10/8/2025	67,029	603,260
10/9/2025	50,199	451,789
10/10/2025	54,645	491,808
10/11/2025	48,717	438,450
10/12/2025	47,913	431,213
10/13/2025	47,437	426,930
10/14/2025	51,277	461,493

Date	North Cell (gal)*	South Cell (gal)*
10/15/2025	50,328	452,952
10/16/2025	50,695	456,255
10/17/2025	55,550	499,950
10/18/2025	54,054	486,482
10/19/2025	47,712	429,406
10/20/2025	58,742	528,678
10/21/2025	46,121	415,086
10/22/2025	50,113	451,017
10/23/2025	50,009	450,081
10/24/2025	47,570	428,130
10/25/2025	50,890	458,010
10/26/2025	51,420	462,780
10/27/2025	49,110	441,994
10/28/2025	58,385	525,461
10/29/2025	47,434	426,904
10/30/2025	52,548	472,935
10/31/2025	47,358	426,225
11/1/2025	55,145	496,301
* OOS indicates pond was out of service. The respective pond is operable but not receiving effluent.		