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AmerenEnergy Medina Valley CoGen, LLC

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1940102568

2022 GROUNDWATER MONITORING ANNUAL REPORT

CLOSED FLY ASH & BOTTOM ASH PONDS
MEREDOSIA POWER STATION

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CLOSED FLY ASH & BOTTOM ASH PONDS
MEREDOSIA POWER STATION

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ACRONYMS AND ABBREVIATIONS

Ameren	AmerenEnergy Medina Valley Cogen, LLC
Class I Groundwater Standard	Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620.410)
GMZ	Groundwater Management Zone
GMP	Groundwater Monitoring Plan
HDPE	High-density polyethylene
IAC	Illinois Administrative Code
IEPA	Illinois Environmental Protection Agency
Meredosia	Meredosia Power Station
mg/L	milligrams per liter
TDS	total dissolved solids
Ameren	AmerenEnergy Medina Valley Cogen, LLC

1. INTRODUCTION

1.1 Background

This 2022 Annual Report has been prepared for AmerenEnergy Medina Valley Cogen, LLC (Ameren) to summarize groundwater monitoring results at the closed Fly Ash and Bottom Ash Ponds at the Meredosia Power Station (Meredosia, **Figure 1-1**). The Old Ash Pond was decommissioned and capped during the 1970's (Kleinfelder West, Inc., 2011), and is not addressed in this groundwater monitoring program. Ameren completed closure activities for the Fly Ash Pond and Bottom Ash Pond in December 2018 in accordance with the Closure Plan (Geotechnology, Inc., 2018a) and requirements of Title 35 of the Illinois Administrative Code (IAC) Section 840. Closure activities, which included grading, placement of a high-density polyethylene (HDPE) geomembrane covered with ClosureTurf®/ArmorFill® synthetic turf, and construction of surface water control structures, began in March 2018 and were completed as of December 5, 2018.

The current groundwater monitoring network comprises 14 monitoring wells, including five installed in October 2010 (APW-1 through APW-5), four installed in October 2015 (APW-6 through APW-9), three installed in August 2018 (APW-10 through APW-12) and two installed in July 2021 (APW-13 and APW-14). Monitoring wells APW-1 through APW-5 were sampled from 2010 to 2012. Beginning in June 2017, and in accordance with the Groundwater Monitoring Plan (GMP) dated December 14, 2016 (Geotechnology, Inc.), groundwater sampling was restarted and conducted quarterly at monitoring wells APW-1 through APW-9. Beginning in September 2018, and in accordance with the GMP, monitoring wells APW-10, APW-11, and APW-12 were incorporated into the well network and were sampled quarterly along with wells APW-1 through APW-9. Monitoring wells APW-13 and APW-14 were incorporated into the well network in July 2021. Monitoring wells were installed to define the lateral extent of impacts on site, as well as to assist in future groundwater monitoring of remedial actions. Locations of all monitoring wells are shown on **Figure 1-2**.

In conjunction with Ameren's request for approval of the Closure Plan, Ameren submitted a Groundwater Management Zone Plan, Fly Ash and Bottom Ash Pond, Meredosia Power Station (Geotechnology, Inc., 2016b) and a request to establish the Groundwater Management Zone (GMZ) pursuant to 35 IAC 620.250(a)(2): Ash Ponds Closure, Groundwater Management Zone Application, dated October 17, 2017, which was approved by the Illinois Environmental Protection Agency (IEPA) on November 1, 2017.

The GMP, in accordance with 35 IAC 840.114 and 35 IAC 840.116, outlines groundwater monitoring and sampling procedures, establishes the parameters and methods to be used for analyzing the groundwater samples, and describes evaluation methods to assess post-closure groundwater quality and trends to demonstrate compliance with the applicable groundwater standards. The Groundwater Monitoring Program Schedule is provided in **Table 1-1**.

Monitoring well installation date, construction details, monitoring objective, position relative to the Fly Ash and Bottom Ash Ponds, and groundwater zone monitored are provided in **Table 1-2**. Field and laboratory parameters for evaluating groundwater quality are shown in **Table 1-3**.

Seven quarterly rounds of pre-closure groundwater data and sixteen quarterly rounds of post-closure data have been collected between June 2017 and December 2022 to satisfy requirements of the GMP (Geotechnology, Inc., 2016a). This is the sixth annual report for Meredosia since groundwater monitoring was restarted in 2017. This annual report includes the following elements:

- A summary of post-closure groundwater monitoring data in 2021 and 2022. Data tables are included in **Appendix A**.
- Methodology for the trend analysis and the outlier analysis along with the results for outlier analysis (**Appendix B**).
- Quarterly Site Inspection Forms, including observations and descriptions of any maintenance activities performed on the pond cap, embankment, roadway, and remaining basin (**Appendix C**).

1.2 Groundwater Quality Overview – 2019 to 2022

1.2.1 Summary of Cover System Construction and Maintenance

Inspections of the cover system are performed on a quarterly schedule. Routine maintenance activities are performed at the Fly Ash Pond and Bottom Ash Pond as needed and as soon as practicable after issues are identified, and may include recontouring the ground surface, repairing drainage channels, repairing and replacing lining material, revegetating areas, and removing woody vegetation. Maintenance activities can be found in more detail in the Post-Closure Care Plan (Geotechnology, Inc., 2018b) and Appendix C.

1.2.2 Summary of 2019 to 2022 Groundwater Quality Data

Groundwater quality data since completion of closure in December 2018 were reviewed to assess the overall condition of the groundwater and the performance of the cover system. This review was performed independently from the compliance evaluations required by the GMP, which are focused on specific compliance criteria and proposed mitigation actions. This review is intended as a holistic view of groundwater quality over time since closure.

Boron and arsenic were identified in the Closure Plan as the primary indicator constituents for coal ash leachate impacts to groundwater at the Fly Ash Pond and Bottom Ash Pond. As such, boron and arsenic were selected for this groundwater quality data review.

Dissolved and total boron concentrations over time since 2019 are presented in **Figures 1-3 through 1-14**. On the figures, the lines through the concentration data represent the best fit linear regressions for boron concentrations in each well. Best fit linear regression lines are included in the figures to provide a convenient means of evaluating general concentration patterns since closure. It should be noted that the regression lines are not equivalent to the statistical trends discussed in the groundwater compliance section of this report. Generally, dissolved and total boron concentrations in most compliance monitoring wells have been stable or decreasing since 2019 and most are currently below the 35 IAC 620.410 Class I Groundwater Standard for the majority of the compliance groundwater monitoring wells, with the following exceptions:

- APW-3 and APW-8 - dissolved and total boron concentrations are above Class I standard but decreasing.
- APW-10 and APW-11 – dissolved and total boron concentrations above Class I standard and show slight increases.

- Based upon the observed groundwater flow direction at the site, the positions of APW-10 and APW-11 are hydraulically upgradient of the closed Fly Ash and Bottom Ash Ponds. The magnitude of dissolved and total boron concentrations at AP-10 and APW-11 are low when compared to other wells located hydraulically downgradient of the closed Fly Ash Pond and Bottom Ash Pond, such as APW-3 and APW-8 (**Figure 3-7 and 3-9**). Consequently, the closed Fly Ash and Bottom Ash Ponds are not contributing to the slight increases of dissolved and total boron concentrations observed at APW-10 and APW-11.

Dissolved and total arsenic concentrations over time since 2019 are presented in **Figures 1-15 through 1-26**. Similar to boron, arsenic concentrations have generally been stable or decreasing since the closure completion and most are currently below the 35 IAC 620.410 Class I Groundwater Standard for the majority of the compliance groundwater monitoring wells, with the following exceptions:

- APW-3 – dissolved and total arsenic concentrations are above the Class I standard and show slight increases, although these trends are not statistically significant.
  - A clear trend is difficult to discern for this location due to variability in the concentrations, which is likely related to fluctuations in the elevation of the Illinois River and associated influence on the aquifer and geochemistry.
- APW-10 and APW-12 - total arsenic concentrations are below the Class I standard and show slight increases, although the data appear to be anomalous as described below.
  - Elevated total arsenic concentrations observed during the fourth quarter of 2021 were identified as outliers (**Appendix B**) due to sampling anomalies and were therefore not considered in the regression analysis. Total arsenic concentrations observed during the 2nd and 3rd quarters of 2022 driving the increasing trends were inconsistent with observed dissolved arsenic concentrations. Higher total arsenic concentrations were observed when the sample turbidity was high, and the observed elevated total arsenic concentrations may be due to elevated sample turbidity.

1.2.3 Conclusion

The stable or decreasing indicator constituent concentrations (boron and arsenic) in the majority of compliance monitoring wells across the site is a strong indication that the cover system is functioning as designed to improve overall groundwater quality beneath the pond.

2. GROUNDWATER MONITORING PLAN COMPLIANCE

2.1 Applicable Groundwater Quality Standards

2.1.1 On-Site Groundwater Standards

Pursuant to 35 IAC 620.450(a), the on-site groundwater quality shall be restored to the Groundwater Quality Standards for Class I: Potable Resource Groundwater (Class I Groundwater Standard) (35 IAC 620.410).

If upon completion of the 30-year post-closure care period the observed concentrations in the site groundwater still exceed a Class I Groundwater Standard, the on-site standard may be adjusted, provided criteria are addressed to the satisfaction of the IEPA.

2.1.2 Off-Site Groundwater Standards

For off-site groundwater compliance, the Class I Groundwater Standards are also used (35 IAC 620.410). A GMZ was requested and approved for Meredosia as part of the Closure Plan. The point of compliance wells for the subject property will be APW-2 and APW-3. These wells are located adjacent to the Illinois River and downgradient relative to the site. If closure of the Fly Ash Pond and Bottom Ash Pond do not reduce the contaminant concentrations to levels below the Class I groundwater standards, a plan for post-remediation monitoring will be submitted to the IEPA (Geotechnology, Inc., 2016b).

2.2 Demonstration of Compliance

Compliance will be based on attainment of post-closure groundwater quality that meets the Class I Groundwater Standards, as set forth in 35 IAC 620.410. Groundwater quality shall be in compliance when groundwater concentrations are below the Class I Groundwater Standards and there are no statistically significant increasing trends at the compliance GMZ boundary.

2.2.1 Compliance Determination

As described in Section 5.2 of the GMP:

- Compliance is determined by performing an annual trend analysis for each downgradient monitoring well (**Table 1-2**) for all constituents listed in **Table 1-3**. The analysis shall use Sen's Estimate of Slope and be performed on a minimum of eight consecutive post-closure groundwater samples.
- If the results of sampling and trend analysis show a positive slope at any downgradient monitoring well, a Mann-Kendall test will be performed at 95 percent confidence to determine whether or not the positive slope represents a statistically significant increasing trend. Ameren will investigate the cause of a statistically significant increasing trend as described below.
  - Notification of statistically significant increasing trends and revision to the sampling frequency must be reported to the IEPA within 30 days of making the determinations.
  - If the investigation attributes a statistically significant increasing trend to a superseding cause, Ameren will notify the IEPA in writing, stating the cause of the increasing trend and providing the rationale used in such a determination.

- If there is no superseding cause and the statistically significant increasing trend continues to be observed over two or more consecutive years, a hydrogeologic investigation (and additional site investigation(s), if necessary) will be performed.

Based on the outcome of the investigation above, Ameren will take action to mitigate statistically significant increasing trends that are causing, threatening or allowing exceedances of off-site groundwater quality standards. Such actions will be proposed as a modification to the post-closure care plan within 180 days after completion of the investigation activities described above.

3. DATA ANALYSIS

3.1 Groundwater Flow

Groundwater flow for 2022 is represented using groundwater elevation contour maps for each quarterly sampling event (**Figures 3-1 through 3-4**). Monitoring well APW-13 was dry in August and December of 2022 (**Figures 3-3 and 3-4**, respectively), and monitoring APW-14 was dry in March, August and December of 2022 (**Figures 3-1**, **3-3**, **and 3-4**, respectively). Groundwater in the uppermost aquifer generally flowed from east to west and northwest towards the Illinois River during 2022, which is consistent with past evaluations. No temporary groundwater flow reversals were observed in 2022.

In March and December 2022 (**Figure 3-1 and 3-4**, respectively), groundwater flow in the area of the Fly Ash Pond was to the northwest and groundwater flow in the area of the Bottom Ash Pond was to the southwest, where groundwater flow converged to the area between the two closed ponds. The primary groundwater flow direction at the site in March and December 2022 was from east to west and northwest towards the Illinois River.

3.2 Review of Analytical Data (2021–2022)

Groundwater samples from the most recent eight post-closure monitoring events were collected on, January 26, 2021; June 30, 2021; September 17, 2021; November 11, 2021/December 13, 2021; March 17, 2022; June 21-22, 2022; August 17-18, 2022; and December 21, 2022. All field and laboratory analytical results are tabulated in **Appendix A**. Sampling anomalies, such as wells that were dry, had water levels too low for sampling, or were not sampled during a sampling event for other reasons, are noted below:

- Monitoring well APW-13 was dry or did not have adequate water for sampling during all sampling events, with the exception of the first and second quarter of 2022, hence was only sampled two times.
- Monitoring well APW-14 was dry or did not have adequate water for sampling during all sampling events, hence was not sampled.

Results of groundwater monitoring for constituents that exceeded the 35 IAC 620.410 Class I Groundwater Standard when the GMZ was established (boron, arsenic, iron, manganese, and sulfate) are discussed below.

- Boron has been identified as the primary indicator constituent for coal ash impacts to groundwater at the Fly Ash Pond and Bottom Ash Pond (see Section 1.2.2). In the 2021–2022 monitoring period, dissolved boron concentrations ranged from 0.04 to 6.8 milligrams per liter (mg/L) and total boron concentrations ranged from 0.041 to 7.0 mg/L in upgradient monitoring wells. In midgradient monitoring wells, dissolved boron concentrations ranged from 0.12 to 7.1 mg/L and total boron concentrations ranged from 0.12 to 7.9 mg/L. In downgradient monitoring wells, dissolved boron concentrations ranged from 0.079 to 20 mg/L and total boron concentrations ranged from 0.082 to 21 mg/L (**Figures 3-6 through 3-9**).
- Arsenic has also been identified as an indicator for coal ash impacts to groundwater at the Fly Ash Pond and Bottom Ash Pond (see Section 1.2.2). In the 2021–2022 monitoring period, dissolved arsenic ranged from 0.0004 to 0.0008 mg/L and total arsenic concentrations ranged from 0.0004 to 0.0053 mg/L in upgradient monitoring wells. In midgradient monitoring wells,

dissolved arsenic concentrations ranged from 0.0004 to 0.0019 mg/L and total arsenic concentrations ranged from 0.0005 to 0.036 mg/L. In downgradient monitoring wells, dissolved arsenic concentrations ranged from 0.0004 to 0.32 mg/L and total arsenic concentrations ranged from 0.0008 to 0.36 mg/L (**Figures 3-10 through 3-13**).

- For sulfate, a non-indicator constituent, box-whisker and timeseries plots illustrating concentrations for the most recent eight monitoring events (2021–2022) were developed (**Figures 3-14 and 3-15**). Similar to the identified indicator parameters, sulfate showed generally stable trends during this reporting period.
- Fluctuations of oxidation/reduction (redox) potential and pH in the subsurface at this facility affect mobility of manganese and iron, making them unreliable indicators of CCR (Geotechnology, Inc., 2016b).

3.3 Statistical Analyses

Analytical data for downgradient wells (APW-2, APW-3, APW-4, APW-9, and APW-12) were evaluated to identify short-term (compliance) data trends in the 2021–2022 dataset. Trends were evaluated according to the procedure outlined in the GMP.

3.3.1 Outlier Analysis

The Grubbs outlier test determines whether there is statistical evidence of a high or low observation that differs significantly from the other data and provides statistical evidence of potential outliers. The test methodology and results are listed in **Appendix B1**. Outliers identified during the compliance period (2021–2022) by the Grubbs outlier test based on the date range of 2010-2022 were not eliminated from further statistical analysis due the lack of documentation indicating that they are not representative of actual field conditions. In addition, these identified outliers did not have any influence on the short-term compliance trends.

3.3.2 Sen's Estimate of Slope

Sen's estimate of slope is a non-parametric estimator of trend. It is the median of all slopes between all possible unique pairs of individual data points in the time period being analyzed. The slopes represent the rate of change of the measured parameter, with the y-axis being the parameter value and the x-axis being calendar time. The method is robust, and fairly insensitive to the presence of a small fraction of outliers and non-detect data values. The test methodologies are listed in **Appendix B2**.

Data collected at downgradient wells in 2021–2022 show 3 cases with positive slopes, 5 cases with negative slopes, and 35 cases with no slope for wells where concentrations above the 20 IAC 620.410 Class I Groundwater Standard were identified (**Table 3-1**). Sen's estimate of slope was not determined for downgradient wells where concentrations were below the 35 IAC 620.410 Class I Groundwater Standard during 2021–2022.

3.3.3 Mann-Kendall Trend Analysis

The 3 cases with positive Sen's slopes referenced above were tested using the Mann-Kendall test to determine if the positive slopes represented statistically significant increasing trends. The Mann-Kendall test is a non-parametric, one-tailed test to determine whether a dataset has a statistically significant increasing or decreasing trend. The test methodology is in **Appendix B2**. Increasing short-term (compliance) trends are identified in **Table 3-1**.

The Mann-Kendall test did not detect any case of statistically significant increasing trend in the 2021–2022 dataset for downgradient wells.

3.4 Site Inspection

The Post-Closure Maintenance Program requires quarterly inspection for the first five years after closure (i.e., through 2023). After five years, the inspection frequency can be reduced to semi-annually provided that semi-annual groundwater monitoring has been approved by IEPA. After five years of semiannual monitoring, the inspection frequency can be reduced to annually pending approval of annual groundwater monitoring. Discontinuance of site inspections will occur after IEPA approval of the certified Post-Closure Care Report.

Site inspections include assessment of the condition and need for repair of final cover and vegetation, as wells as fencing, monitoring points, and surface water control features. The inspection reports from 2021 are included in **Appendix C**.

Site inspections were performed on March 4, 2022, May 19, 2022, August 26, 2022, and November 30, 2022. As noted in November 2022 inspection report, a tear was observed in the ClosureTurf®/ArmorFill® synthetic turf towards the cap peak. A turf flap from the rip completely covers the HDPE geomenbrane and no geomembrane damage was observed, as such no action is required. Overall, all the components of the ClosureTurf®/ArmorFill® synthetic turf cover system are in good condition and will continue to be monitored as part of quarterly site inspections.

4. EVALUATION OF COMPLIANCE AND CONCLUSIONS

Cover system construction and maintenance, as well as stable or decreasing boron and arsenic concentrations in the majority of compliance monitoring wells across the site is a strong indication that the cover system is functioning as designed to improve overall groundwater quality beneath the pond.

Statistical analyses of analytical results for groundwater samples collected during the 2021-2022 compliance period at the Meredosia Fly Ash Pond and Bottom Ash Pond indicated downgradient monitoring wells were in compliance with the requirements stated in the GMP: concentrations of monitored parameters above the 35 IAC 620.410 Class I Groundwater Standard did not exhibit short-term statistically significant increasing trends for any parameter at any downgradient monitoring well during the 2021-2022 compliance period. As such, no further action is required at this time. The concentrations of indicator parameters will continue to be monitored and evaluated in 2023.

5. REFERENCES

Geotechnology, Inc., 2016a. *Groundwater Monitoring Plan, Fly Ash Pond and Bottom Ash Pond, Meredosia Power Station*. December 14, 2016.

Geotechnology, Inc., 2016b. *Groundwater Management Zone Plan, Fly Ash Bottom Ash Pond, Meredosia Power Station, 800 South Washington Street, Meredosia, Illinois*. December 22, 2016.

Geotechnology, Inc., 2018a. *Closure Plan, Meredosia Power Station*. March 12, 2018.

Geotechnology, Inc., 2018b. *Post-Closure Care Plan, Meredosia Power Station*. March 12, 2018.

Illinois Environmental Protection Agency (IEPA), 1991. *Groundwater Quality Standards for Class I: Potable Resource Groundwater*, Title 35 of the Illinois Administrative Code Part 620: Groundwater Quality, amended 2013.

Kleinfelder West, Inc., 2011. *Coal Ash Impoundment Site Assessment Final Report, Meredosia Power Station, Ameren Energy Generating Company, Meredosia, Illinois.* May 10, 2011.

TABLES

Table 1-1. Groundwater Monitoring Program Schedule
2022 Annual Report
Meredosia Power Station - Fly Ash Pond and Bottom Ash Pond

Frequency	Duration	Sampling Quarter
Quarterly	Begins: June 2017	January- March (1) April - June (2) July - September (3) October - December (4)
	Ends: After successful completion of the post-closure activities required and approval of the Illinois EPA; or Acceptance of reduced frequency by IEPA based on successful demonstration under Semi-Annual or Annual Frequency	
Semi-Annual or Annual	Begins: Upon demonstration that monitoring effectiveness will not be compromised by reduced frequency, adequate data has been collected to characterize groundwater, and concentration of constituents monitored at downgradient boundaries do not demonstrate statistically significant increasing trends that can be attributed to the former ash ponds	April - June (2)
	Ends: After successful completion of the post-closure activities required and approval of the Illinois EPA	October - December (4)

[O: YD/SJC, C: YD/SJC]

Table 1-2. Groundwater Monitoring System Wells
2022 Annual Report
Meredosia Power Station - Fly Ash Pond and Bottom Ash Pond

Monitoring Well Number	Installation Date	Surface Elevation (ft, NAVD88)[1]	TOC Elevation (ft, NAVD88)[1]	Top of Screen Elevation (ft, NAVD88)[1]	Bottom of Screen Elevation (ft, NAVD88)[1]	Total Well Depth (ft, BGS)	Objective	Position	Monitoring Zone
APW-1	10/26/2010	446.06	449.26	431.40	421.40	24.7	Compliance	Upgradient	Uppermost Aquifer
APW-2	10/25/2010	433.97	436.87	421.10	411.10	22.9	Compliance	Downgradient	Uppermost Aquifer
APW-3	10/25/2010	433.35	436.28	420.80	410.80	22.6	Compliance	Downgradient	Uppermost Aquifer
APW-4	10/26/2010	431.90	434.86	415.80	409.30	26.1	Compliance	Downgradient	Uppermost Aquifer
APW-5	10/26/2010	450.48	453.20	431.00	421.00	29.5	Compliance	Upgradient	Uppermost Aquifer
APW-6	10/1/2015	448.60	451.90	431.10	421.10	28.0	Compliance	Midgradient	Uppermost Aquifer
APW-7	10/1/2015	435.00	438.70	429.00	419.00	16.5	Compliance	Midgradient	Uppermost Aquifer
APW-8	10/1/2015	460.50	463.90	431.90	421.90	39.1	Compliance	Midgradient	Uppermost Aquifer
APW-9	10/1/2015	445.00	448.10	426.20	416.20	29.3	Compliance	Downgradient	Uppermost Aquifer
APW-10	8/20/2018	454.10	457.45	424.90	414.90	39.4	Compliance	Midgradient	Uppermost Aquifer
APW-11	8/22/2018	461.89	465.40	427.64	417.64	44.45	Compliance	Upgradient	Uppermost Aquifer
APW-12	8/21/2018	431.94	435.52	422.10	412.10	20.0	Compliance	Downgradient	Uppermost Aquifer
APW-13	7/13/2021	457.84	461.55	437.34	427.34	31.0	Compliance	Midgradient	Uppermost Aquifer
APW-14	7/12/2021	455.55	459.27	439.04	429.04	27.0	Compliance	Midgradient	Uppermost Aquifer

[U: RSD 3/4/2022, C: RAB 3/10/22]

Notes:

1. Elevations referenced to North American Vertical Datum (NAVD) of 1988 with the exception of APW-5 through APW-9 which are referenced to feet above Mean Sea Level

TOC = top of casing (i.e. top of riser pipe)

BGS = below ground surface

ft = feet

Table 1-3. Groundwater Monitoring Program Parameters
2022 Annual Report
Meredosia Power Station - Fly Ash Pond and Bottom Ash Pond

Field Parameters	STORET Code	
pH[2]	00400	
Specific Conductance[2]	00094	
Temperature (Fahrenheit)	00011	
Depth to Water (from TOC)	72109	
Elevation of GW Surface[2]	71993	
Depth of Well (BGS)[2]	72008	
Elevation of Measuring Point	72110	
Laboratory Parameters[1]	**STORET Code-Diss**	**STORET Code-Total**
Boron[2]	01020	01022
Iron[2]	01046	01045
Manganese[2]	01056	01055
Sulfate[2]	00946	- -
Total Dissolved Solids (TDS)[2]	70300	- -
Antimony	01095	01097
Arsenic	01000	01002
Barium	01005	01007
Beryllium	01010	01012
Cadmium	01025	01027
Chloride	00941	- -
Chromium	01030	01034
Cobalt	01035	01037
Copper	01040	01042
Cyanide	- -	00720
Fluoride	00950	- -
Lead	01049	01051
Mercury	71890	71900
Nickel	01065	01067
Nitrate as N	00613	- -
Nitrite as N	00618	- -
Selenium	01145	01147
Silver	01075	01077
Thallium	01057	01059
Vanadium	01085	01087
Zinc	01090	01092

[O: YD/SJC, C: YD/SJC]

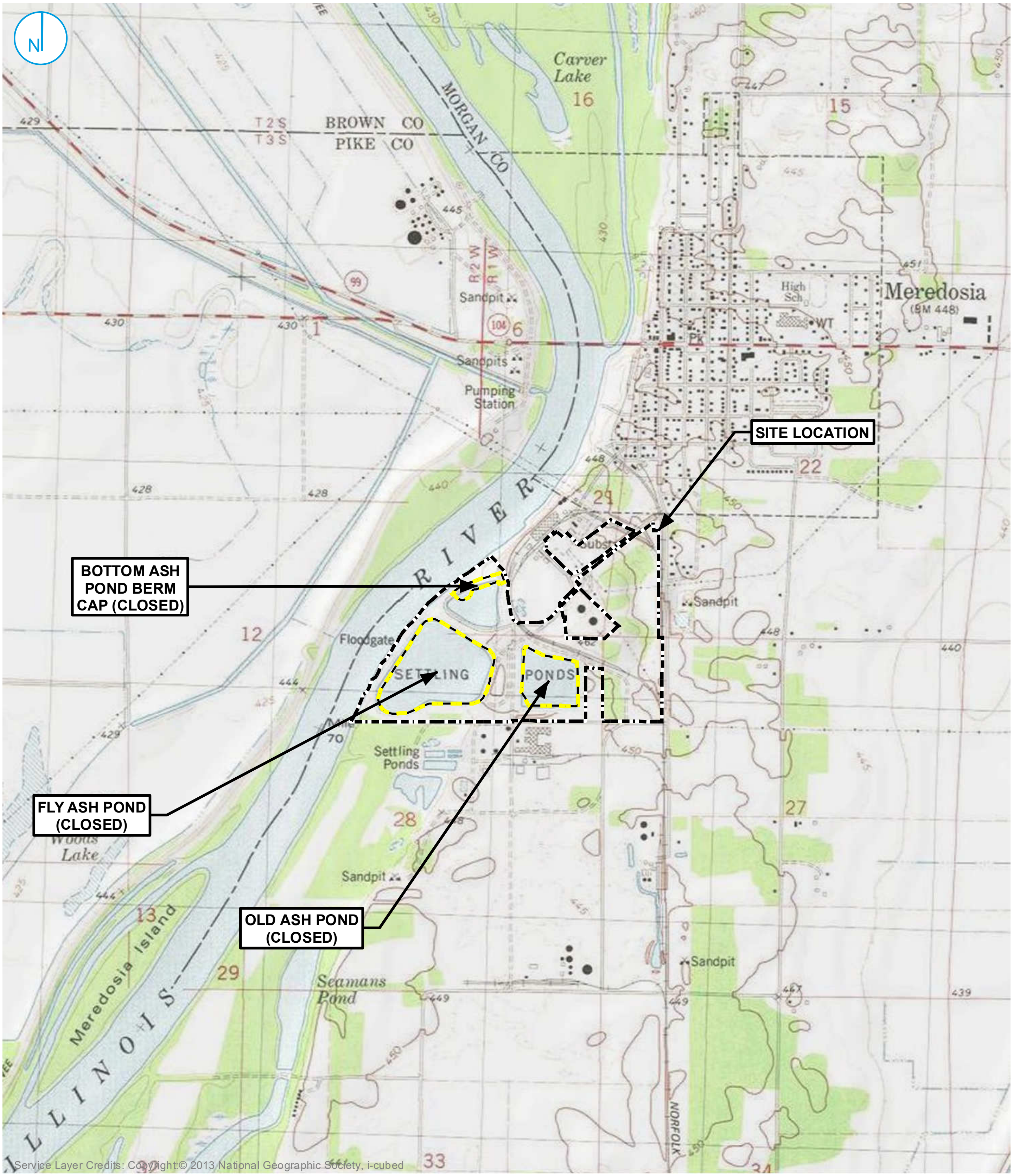
Notes:
[1] Reported as dissolved (filtered) concentrations.
[2] Mandatory monitoring parameter per 35 IAC 840.114(a).
BGS: Below Ground Surface
TOC: Top of Casing

Table 3-1. Trend Analysis Results
2022 Annual Report
Meredosia Power Station - Fly Ash Pond and Bottom Ash Pond

	APW-2	APW-3	APW-4	APW-9	APW-12
Number of Samples	**8**	**8**	**8**	**8**	**8**
Antimony, dissolved	DNE	DNE	DNE	DNE	DNE
Antimony, total	DNE	DNE	DNE	DNE	DNE
Arsenic, dissolved	DNE	None	None	DNE	DNE
Arsenic, total	DNE	None	None	DNE	None
Barium, dissolved	DNE	DNE	DNE	DNE	DNE
Barium, total	DNE	DNE	DNE	DNE	DNE
Beryllium, dissolved	DNE	DNE	DNE	DNE	DNE
Beryllium, total	DNE	DNE	DNE	DNE	DNE
Boron, dissolved	None	-	DNE	DNE	DNE
Boron, total	None	-	DNE	DNE	DNE
Cadmium, dissolved	DNE	DNE	DNE	DNE	DNE
Cadmium, total	DNE	DNE	DNE	DNE	DNE
Chloride, dissolved	DNE	DNE	DNE	DNE	DNE
Chromium, dissolved	DNE	DNE	DNE	DNE	DNE
Chromium, total	DNE	DNE	DNE	DNE	DNE
Cobalt, dissolved	DNE	DNE	DNE	DNE	DNE
Cobalt, total	DNE	DNE	DNE	DNE	DNE
Copper, dissolved	DNE	DNE	DNE	DNE	DNE
Copper, total	DNE	DNE	DNE	DNE	DNE
Cyanide, total	DNE	DNE	DNE	DNE	DNE
Fluoride, dissolved	DNE	DNE	DNE	DNE	DNE
Iron, dissolved	DNE	DNE	-	DNE	DNE
Iron, total	DNE	+	-	DNE	+
Lead, dissolved	DNE	DNE	DNE	DNE	DNE
Lead, total	DNE	DNE	DNE	DNE	None
Manganese, dissolved	None	None	None	DNE	None
Manganese, total	None	None	None	None	+
Mercury, dissolved	DNE	DNE	DNE	DNE	DNE
Mercury, total	DNE	DNE	DNE	DNE	DNE
Nickel, dissolved	DNE	DNE	DNE	DNE	DNE
Nickel, total	DNE	DNE	DNE	DNE	None
Nitrate (as N), dissolved	DNE	DNE	DNE	DNE	DNE
Nitrite (as N), dissolved*	DNE	DNE	DNE	DNE	DNE
Selenium, dissolved	DNE	DNE	DNE	DNE	DNE
Selenium, total	DNE	DNE	DNE	DNE	DNE
Silver, dissolved	DNE	DNE	DNE	DNE	DNE
Silver, total	DNE	DNE	DNE	DNE	DNE
Sulfate, dissolved	DNE	DNE	DNE	-	DNE
Thallium, dissolved	DNE	DNE	DNE	DNE	DNE
Thallium, total	DNE	None	DNE	DNE	None
Total Dissolved Solids	DNE	DNE	DNE	DNE	DNE
Vanadium, dissolved	DNE	DNE	DNE	DNE	DNE
Vanadium, total	DNE	DNE	DNE	DNE	None
Zinc, dissolved	DNE	DNE	DNE	DNE	DNE
Zinc, total	DNE	DNE	DNE	DNE	DNE

Notes:
- Trend analysis wsa done for downgradient wells.
- "+" indicates that the Sen's non-parametric estimate of the median slope is positive.
- "-" indicates that the Sen's non-parametric estimate of the median slope is negative.
- "Increase" indicates a statistically significant increasing trend
- "Decrease" indicates a statistically significant decreasing trend
- DNE indicates constituents that did not exceed the Class I groundwater quality standard in the reporting period (2021-2022).
- "None" indicates insufficent evidence of a trend as determined using the Mann-Kendall test at 95% confidence for
- * indicates No Class 1 Standard
- Mann Kendall Trend analysis done with non-detects at one half the detection limit.
- Date range for the Sen's non-parametric estimate of the median slope and trend analysis is 1/1/2021-12/31/2022

FIGURES



KEY MAP

Map Scale: 1:1:24,000;
Map Center: 90°34'10"W 39°49'15"N

APPROXIMATE PROPERTY BOUNDARY

LIMITS OF CCP MANAGEMENT

NOTE
Base map property lines were updated based on March 2019 Plat of Survey.

0 1,000 2,000 Feet

SITE LOCATION MAP

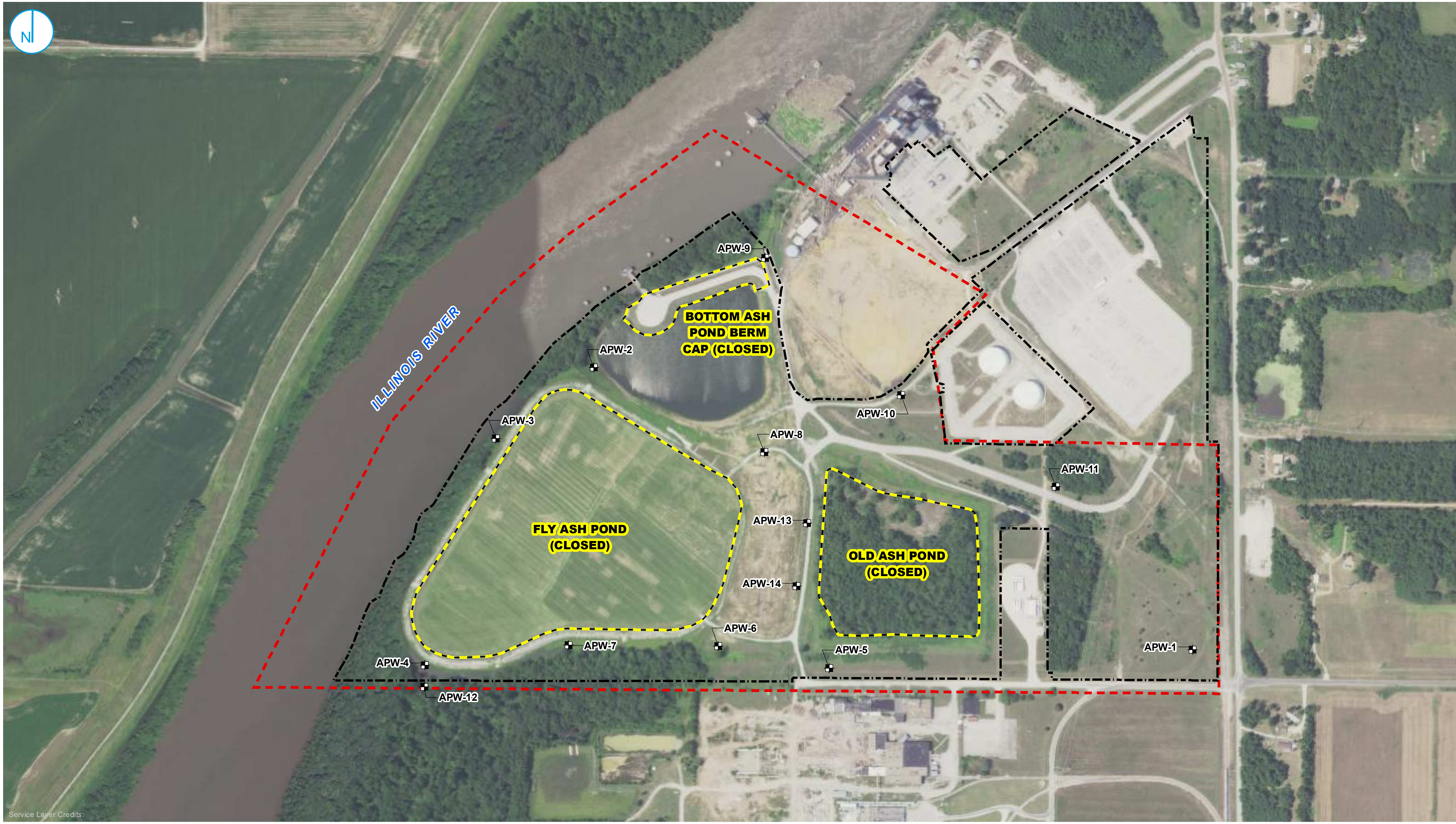
FIGURE 1-1

2022 GROUNDWATER MONITORING ANNUAL REPORT
AMEREN ENERGY RESOURCES
MEREDOSIA POWER STATION
MORGAN COUNTY, ILLINOIS

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

Y:\Mapping\Projects\6\67815\mxd\2022\Figure 1-1_Site Location Map.mxd

DATED: 3/16/2023 | DESIGNER: GALARNMC



Y:\Mapping\Projects\6\67815\mxd\2022\Figure 1-2_Site_Base_Map.mxd

PROJECT: 72694 | DATED: 3/16/2023 | DESIGNER: GALARNMC

MONITORING WELL LOCATION
APPROXIMATE PROPERTY BOUNDARY
LIMITS OF CCP MANAGEMENT
APPROXIMATE GROUNDWATER MONITORING ZONE

0 240 480 Feet

NOTE
Base map property lines were updated based on March 2019 Plat of Survey.

MONITORING WELL LOCATION MAP

2022 GROUNDWATER MONITORING ANNUAL REPORT
AMEREN ENERGY RESOURCES
MEREDOSIA POWER STATION
MORGAN COUNTY, ILLINOIS

FIGURE 1-2

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

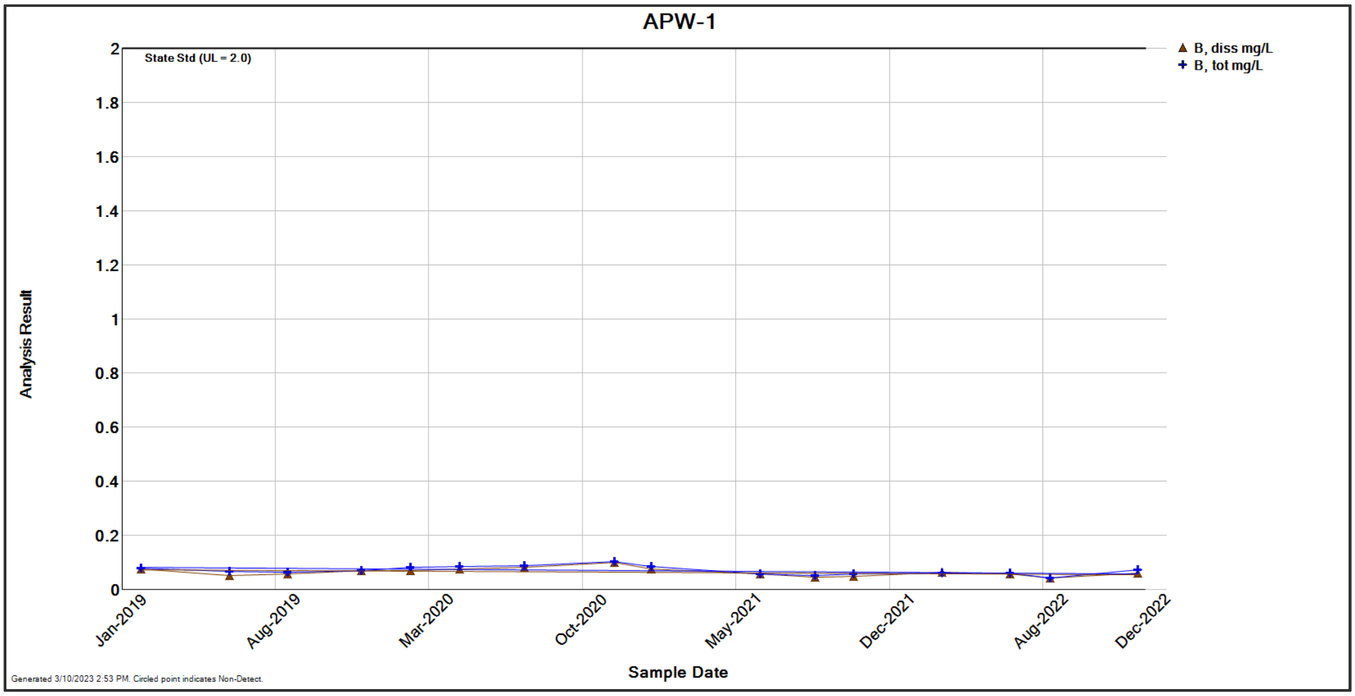


Figure 1-3. Boron (dissolved and total) concentrations since 2019 at upgradient well APW-1. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

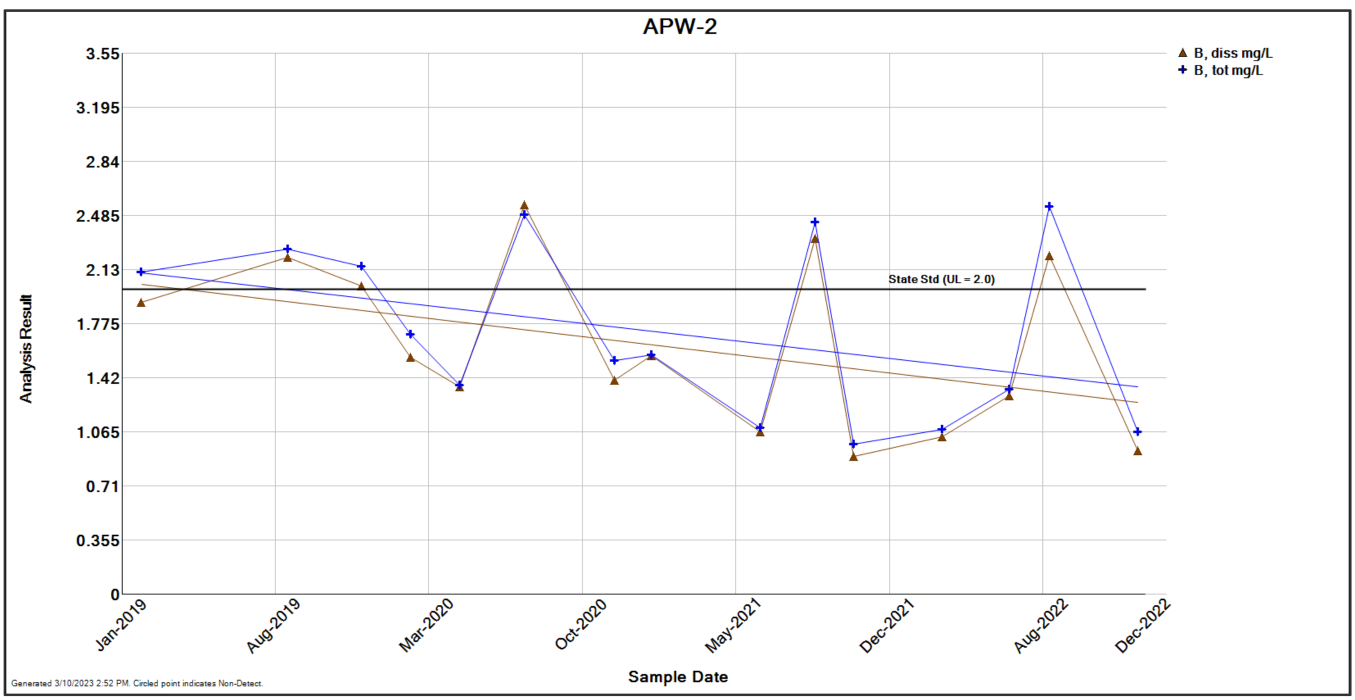


Figure 1-4. Boron (dissolved and total) concentrations since 2019 at downgradient well APW-2. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

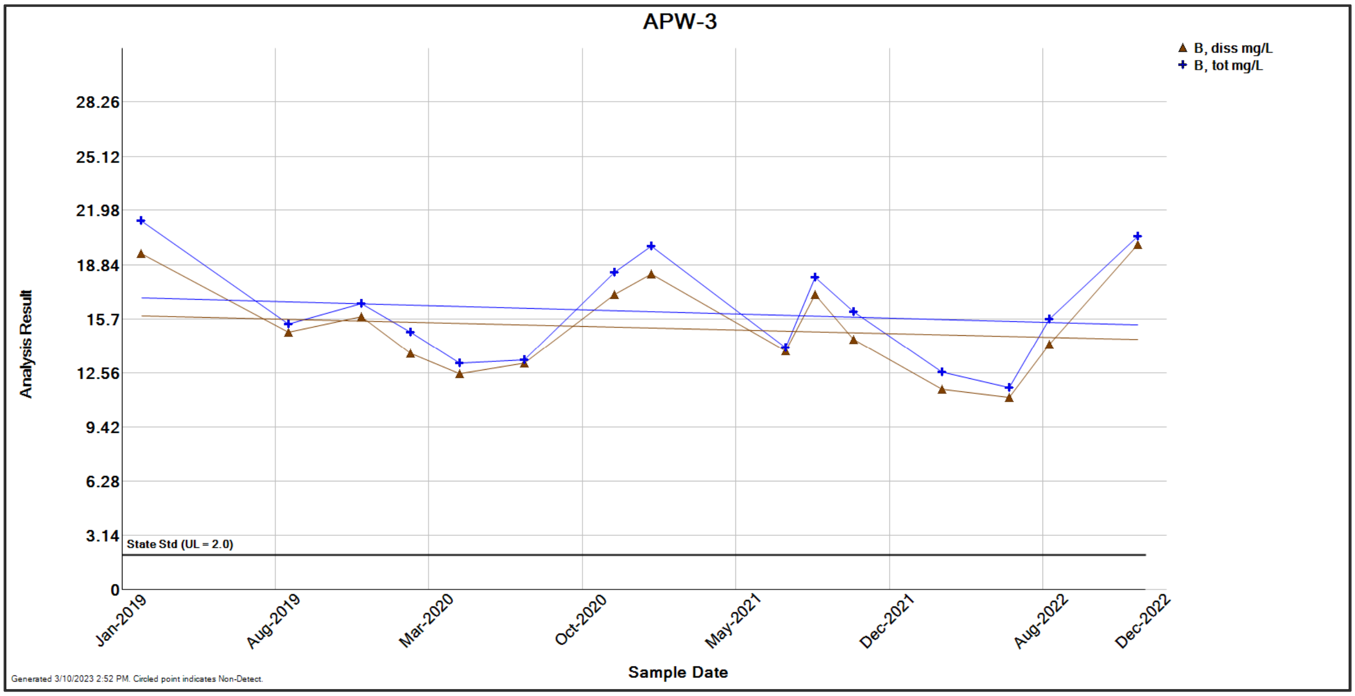


Figure 1-5. Boron (dissolved and total) concentrations since 2019 at downgradient well APW-3. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

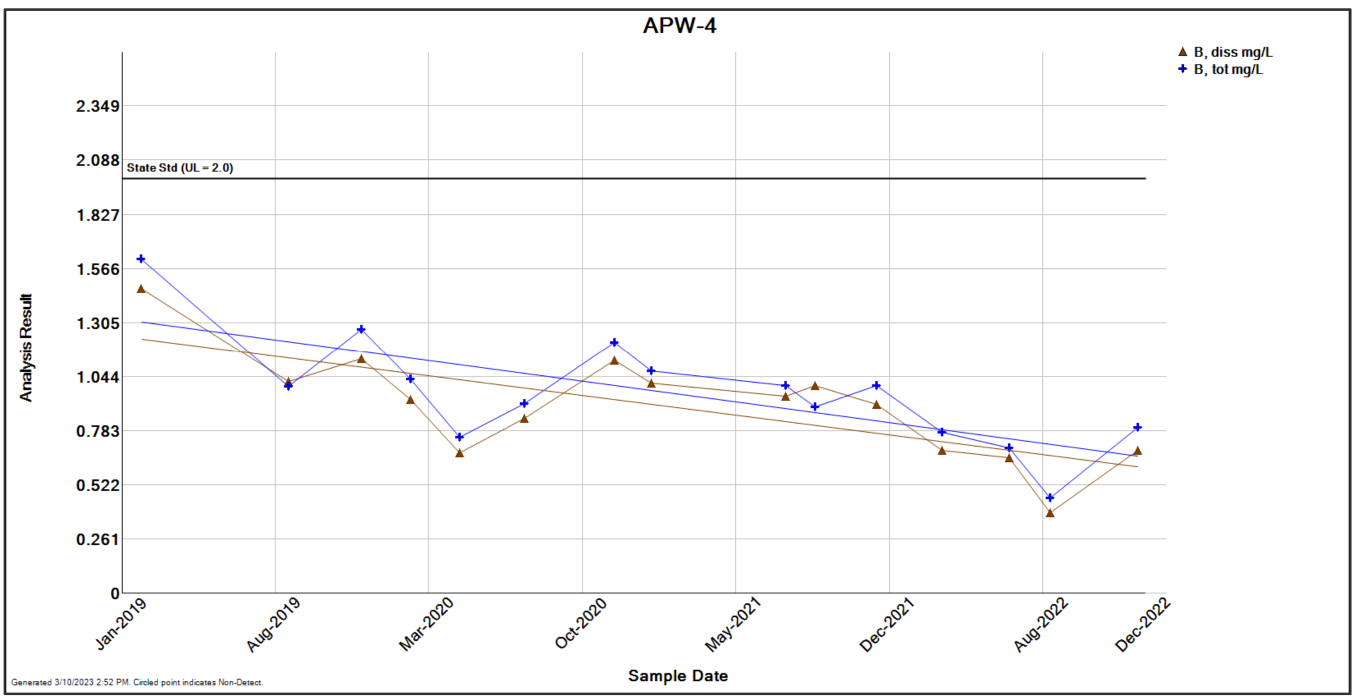


Figure 1-6. Boron (dissolved and total) concentrations since 2019 at downgradient well APW-4. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

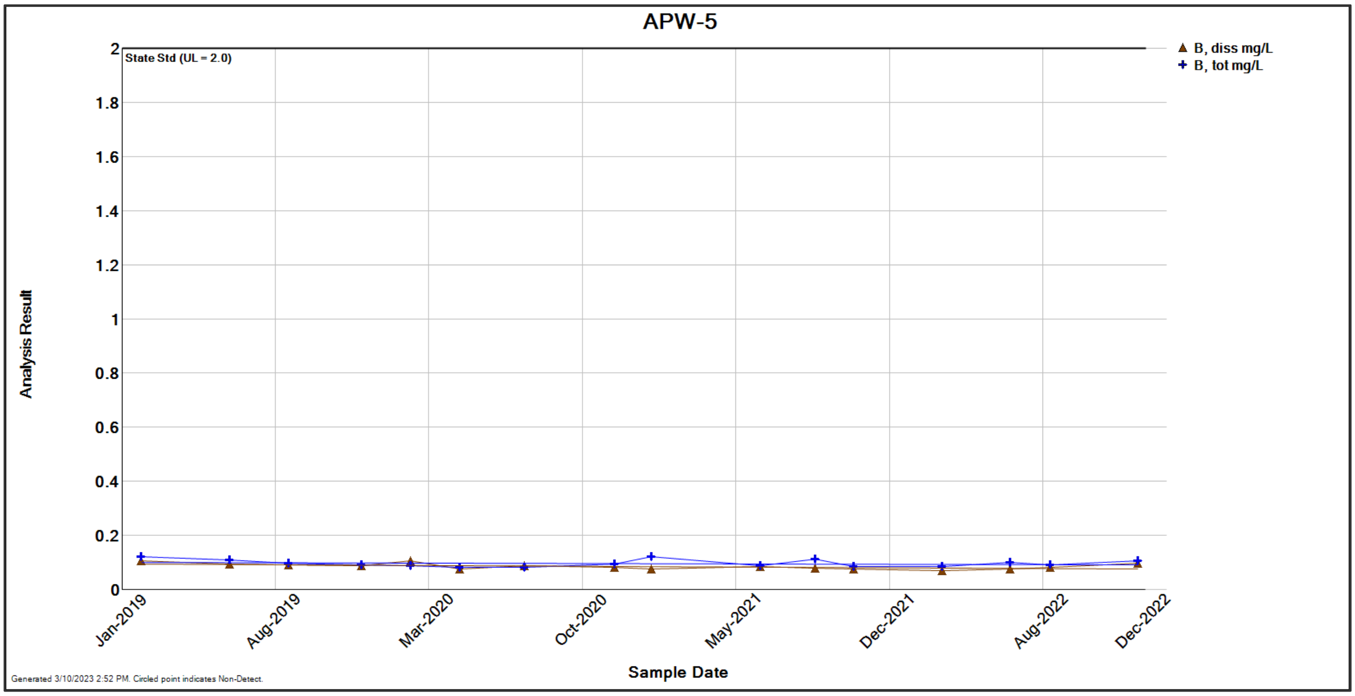


Figure 1-7. Boron (dissolved and total) concentrations since 2019 at upgradient well APW-5. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

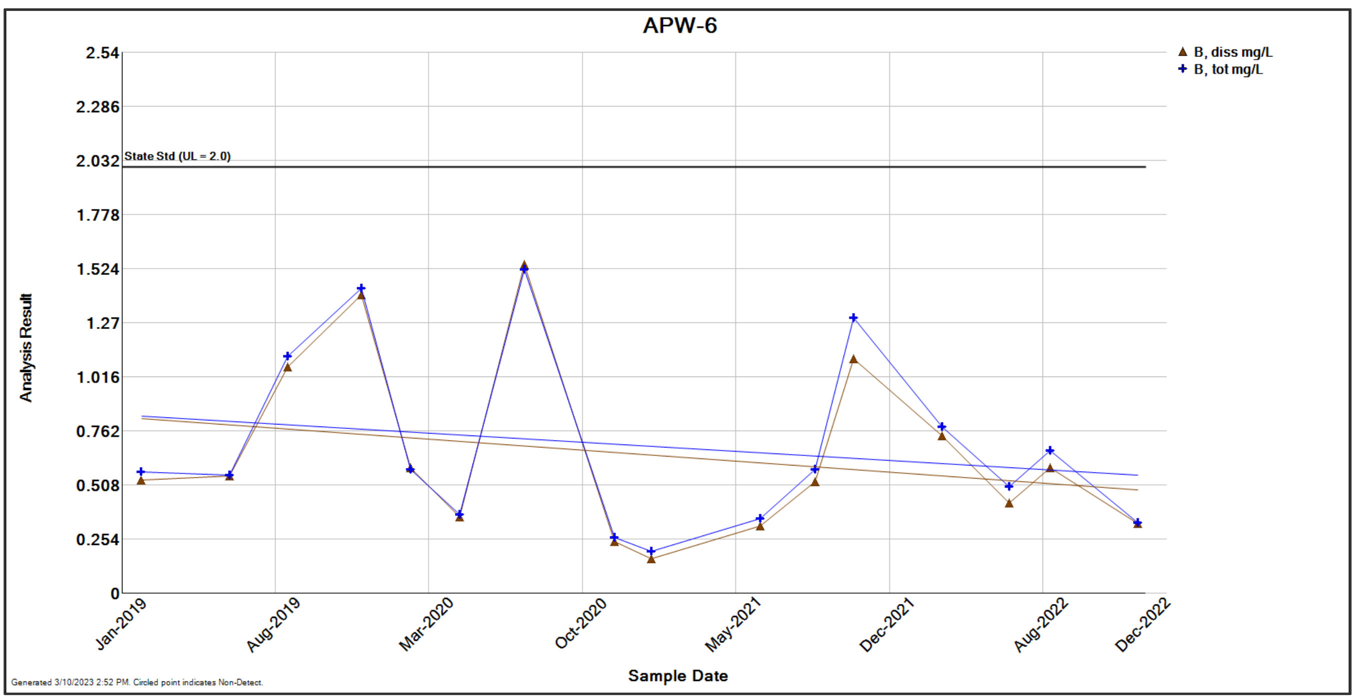


Figure 1-8. Boron (dissolved and total) concentrations since 2019 at midgradient well APW-6. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

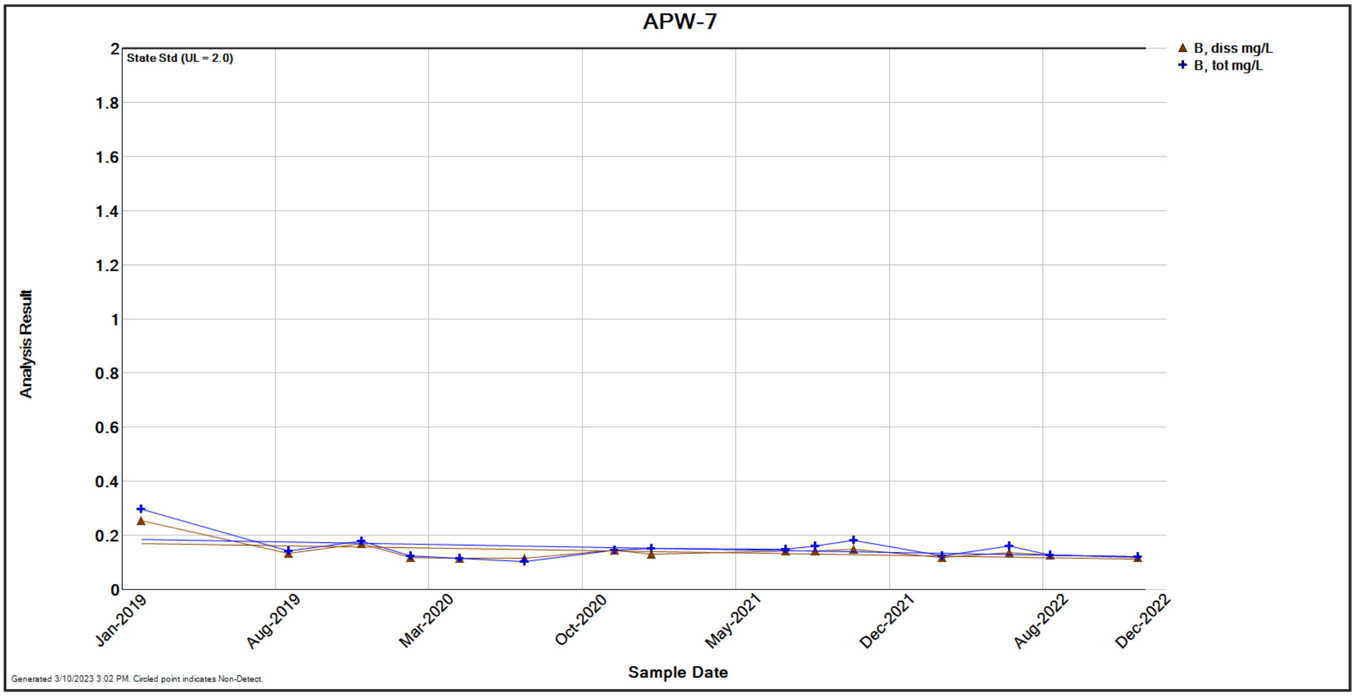


Figure 1-9. Boron (dissolved and total) concentrations since 2019 at midgradient well APW-7. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

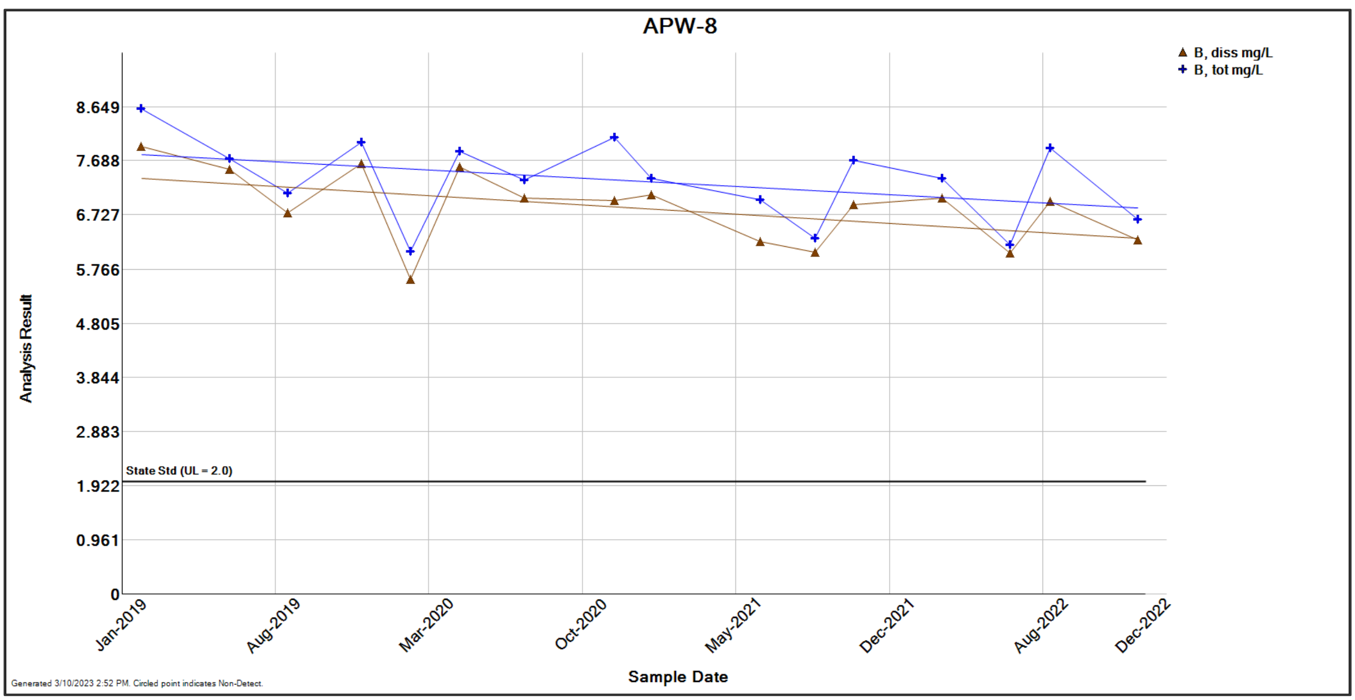


Figure 1-10. Boron (dissolved and total) concentrations since 2019 at midgradient well APW-8. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

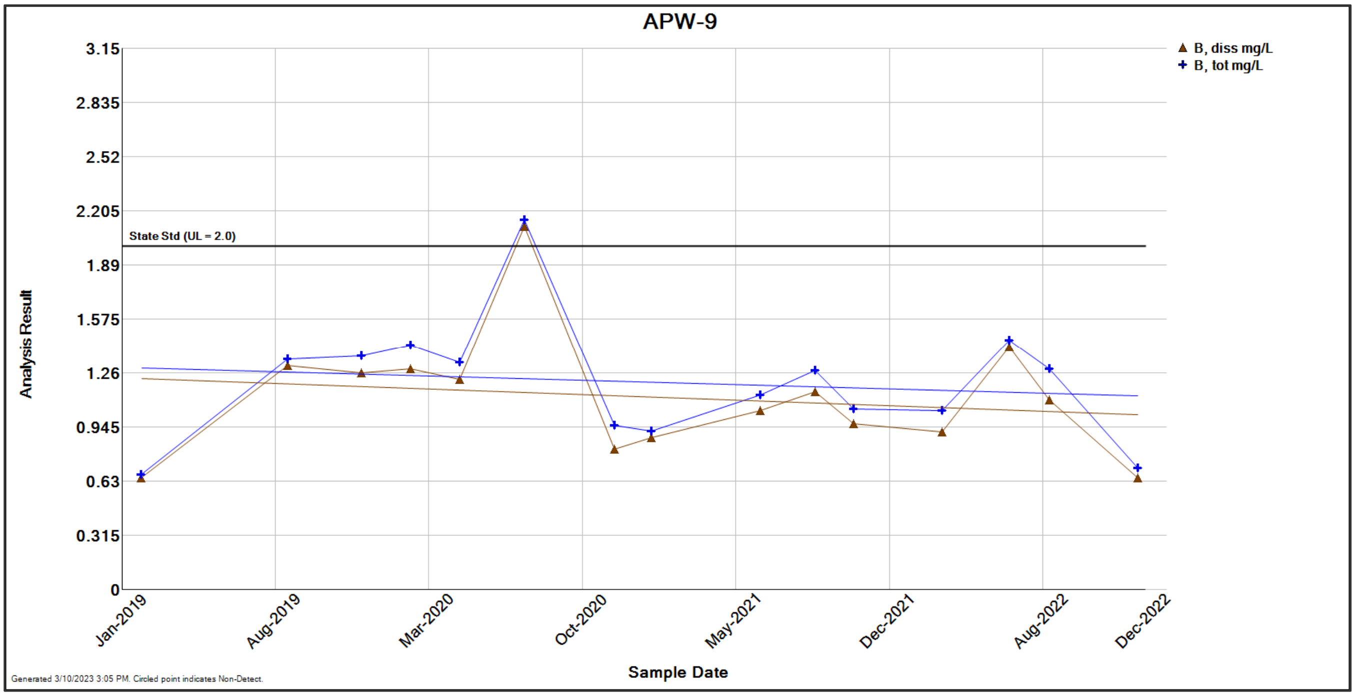


Figure 1-11. Boron (dissolved and total) concentrations since 2019 at downgradient well APW-9. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

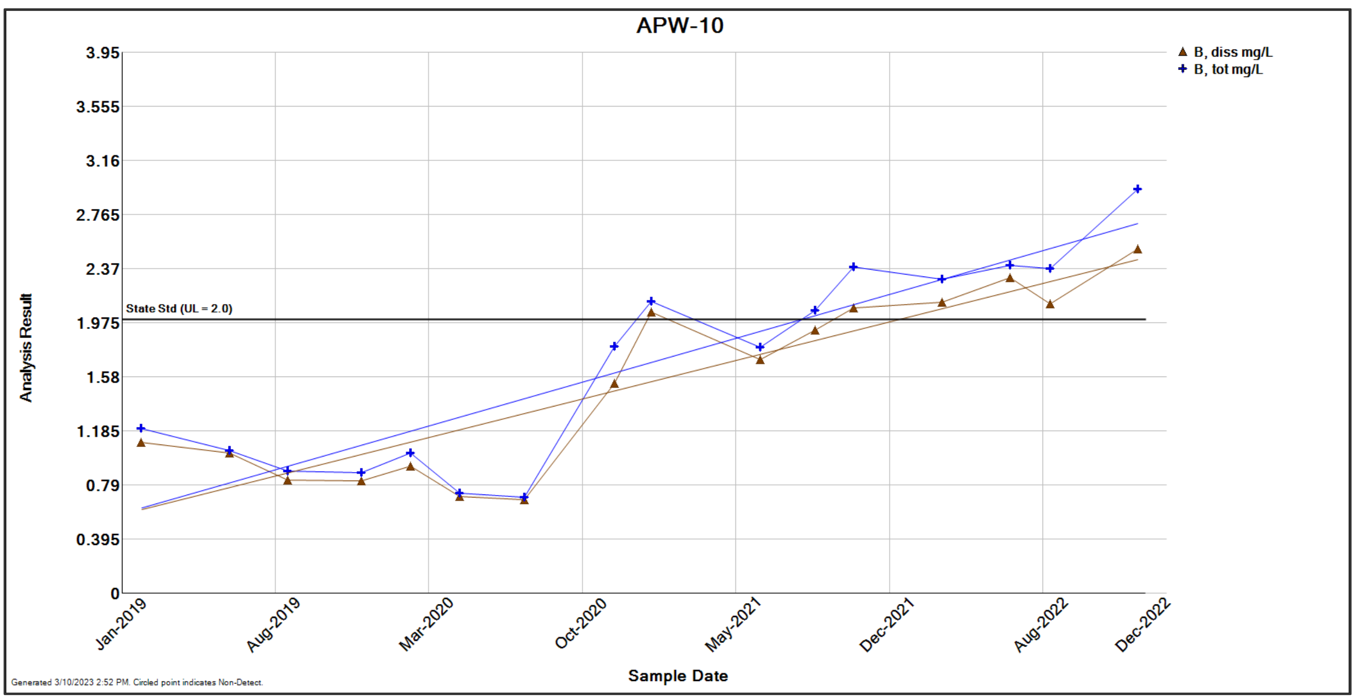


Figure 1-12. Boron (dissolved and total) concentrations since 2019 at midgradient well APW-10. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

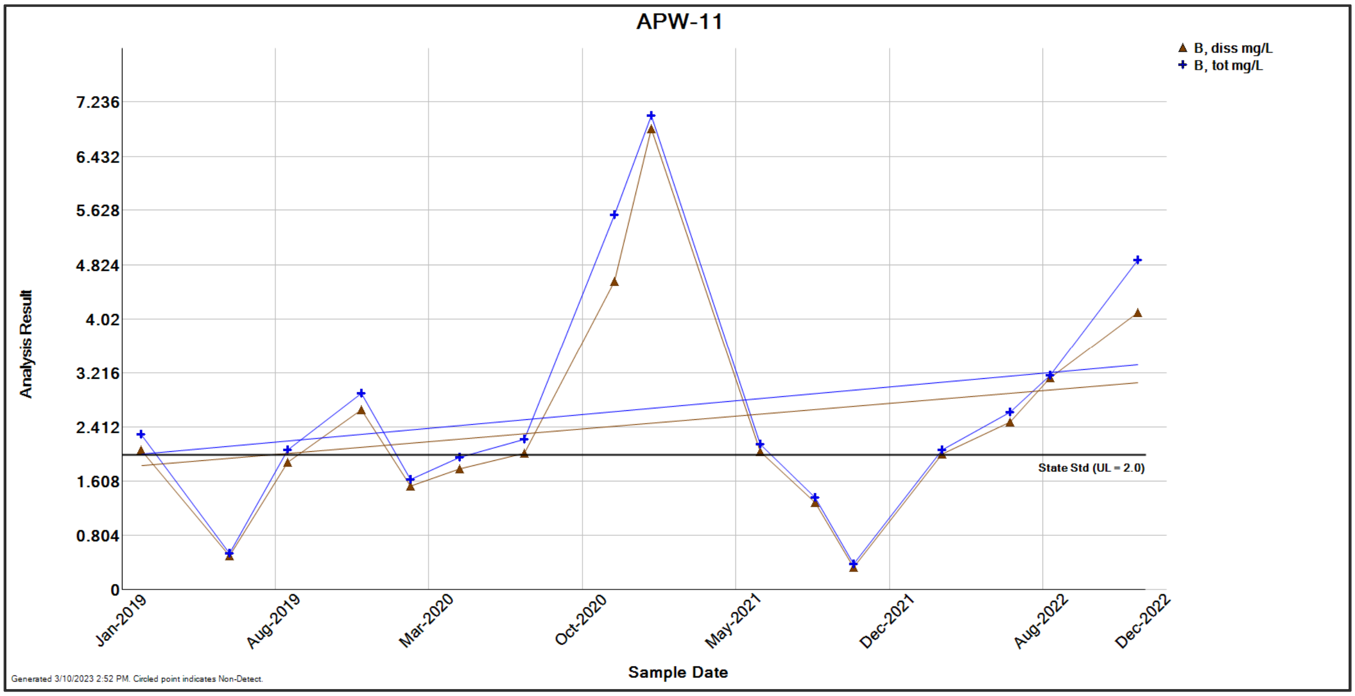


Figure 1-13. Boron (dissolved and total) concentrations since 2019 at upgradient well APW-11. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

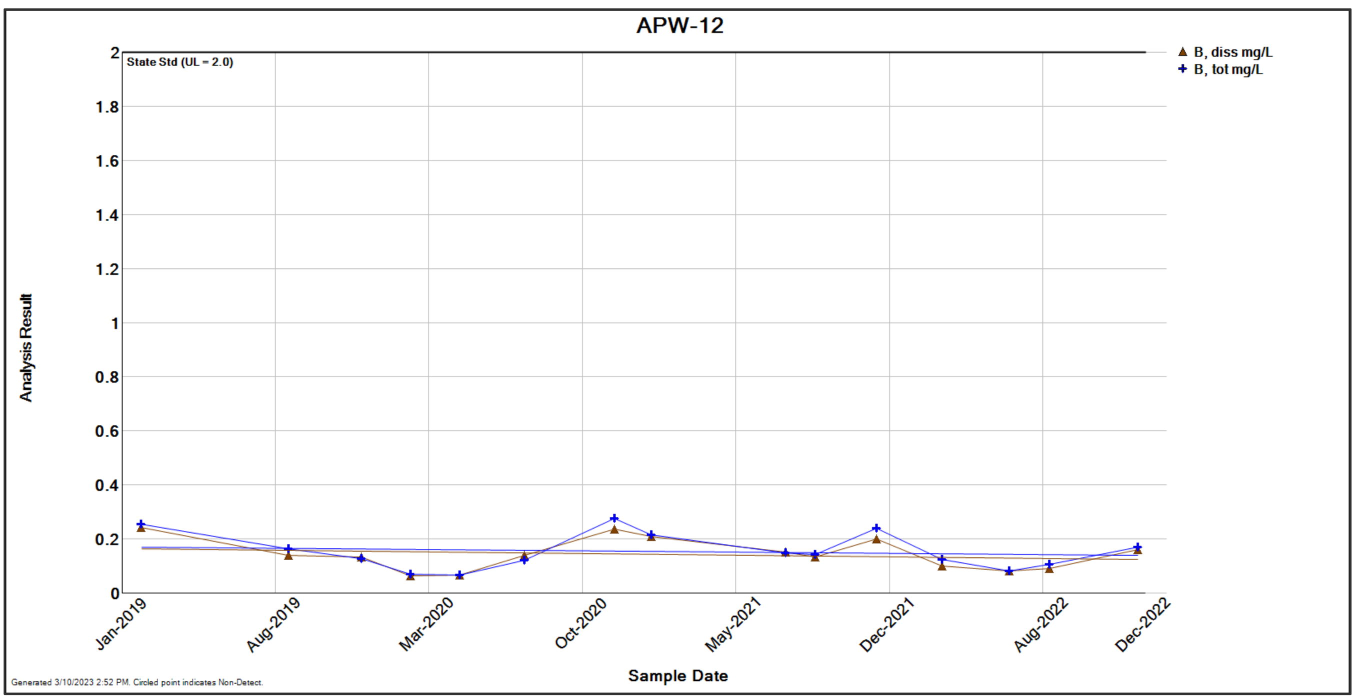


Figure 1-14. Boron (dissolved and total) concentrations since 2019 at downgradient well APW-12. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

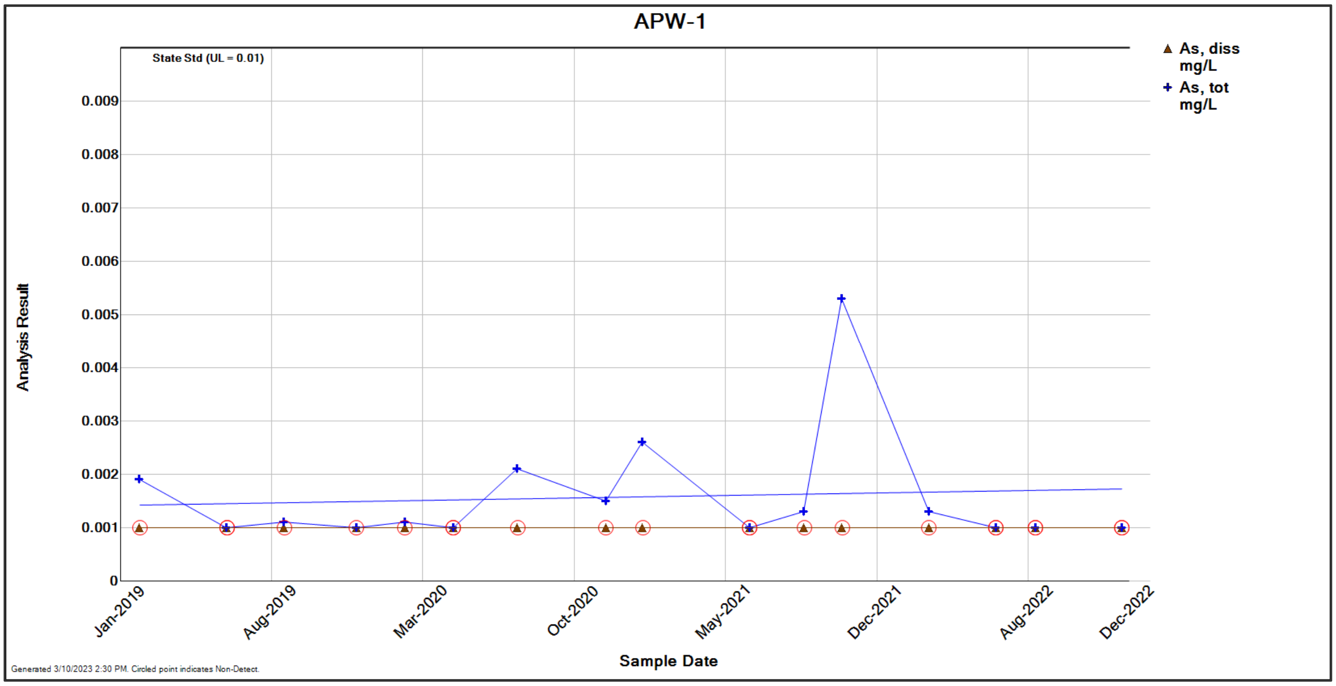


Figure 1-15. Arsenic (dissolved and total) concentrations since 2019 at upgradient well APW-1. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.

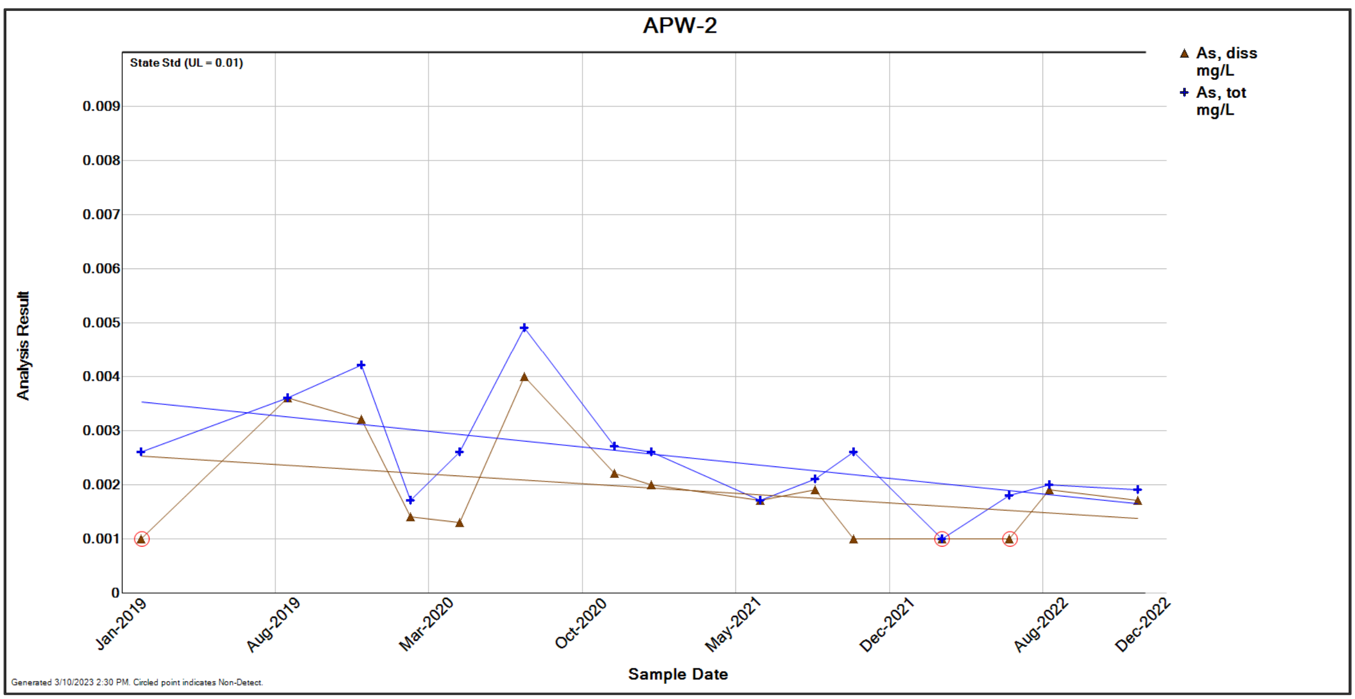


Figure 1-16. Arsenic (dissolved and total) concentrations since 2019 at downgradient well APW-2. The Class Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.

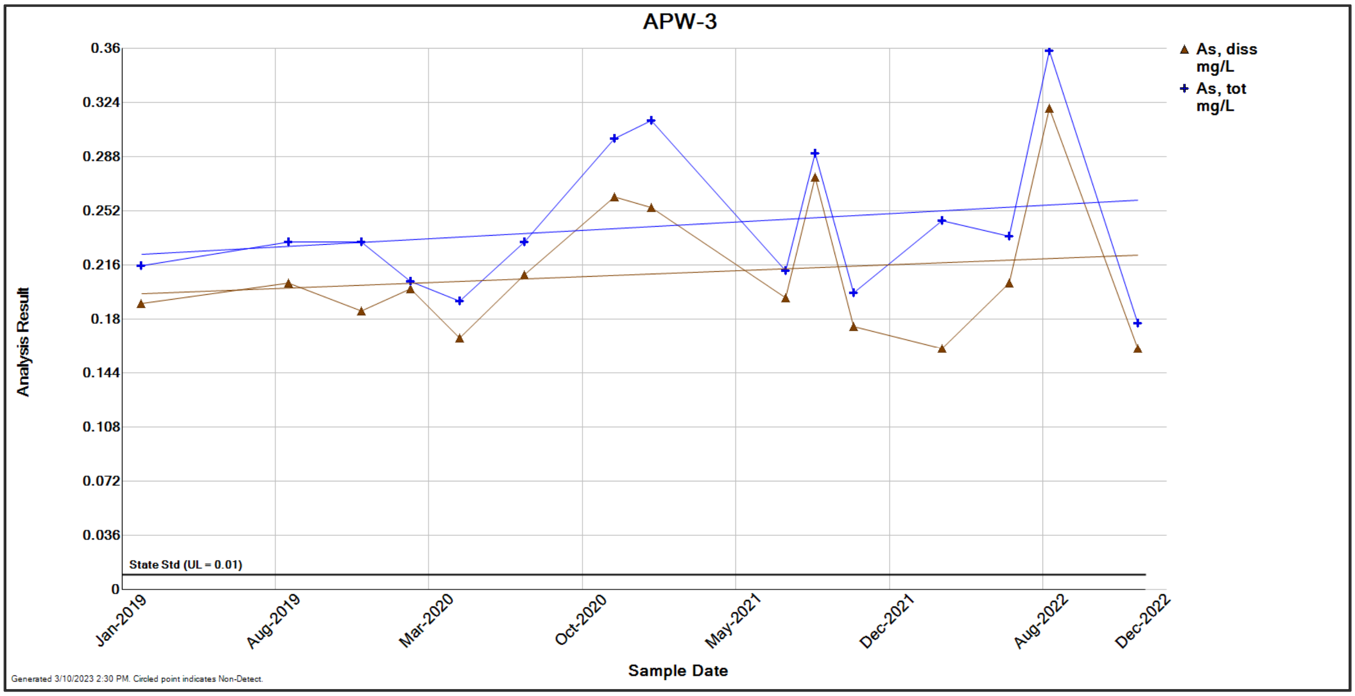


Figure 1-17. Arsenic (dissolved and total) concentrations since 2019 at downgradient well APW-3. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

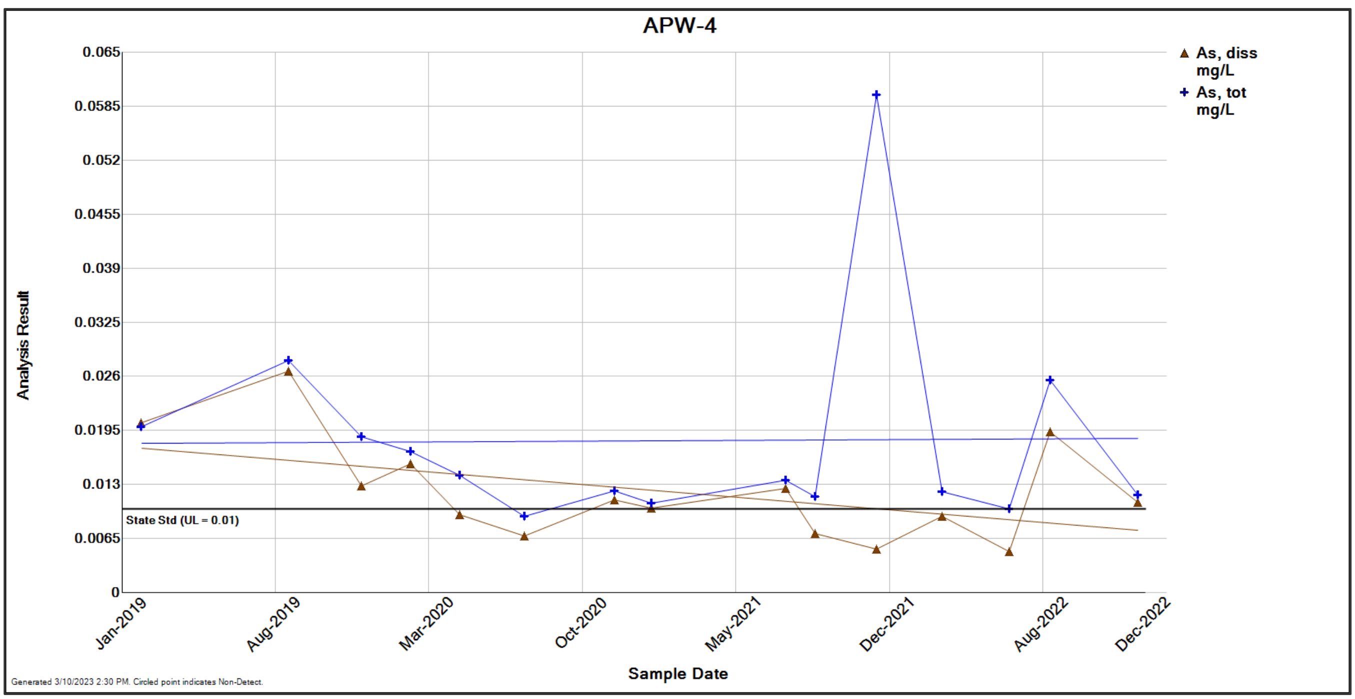


Figure 1-18. Arsenic (dissolved and total) concentrations since 2019 at downgradient well APW-4. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

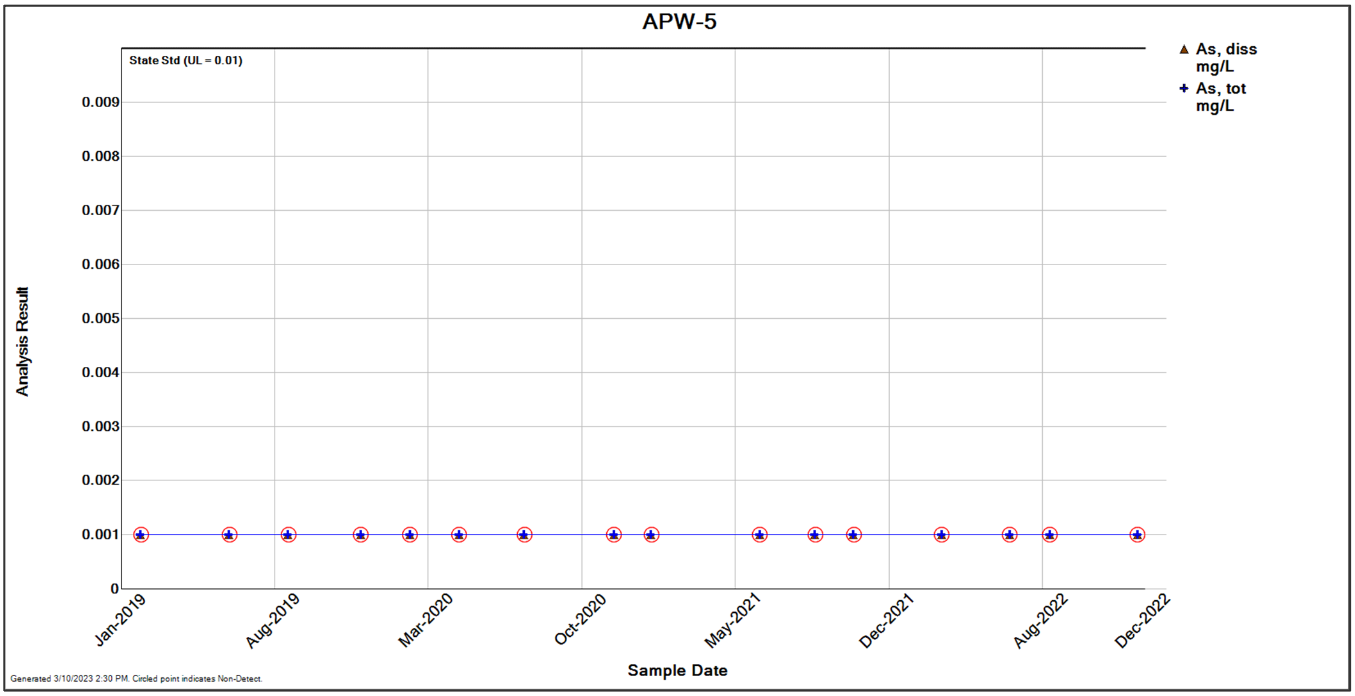


Figure 1-19. Arsenic (dissolved and total) concentrations since 2019 at upgradient well APW-5. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.

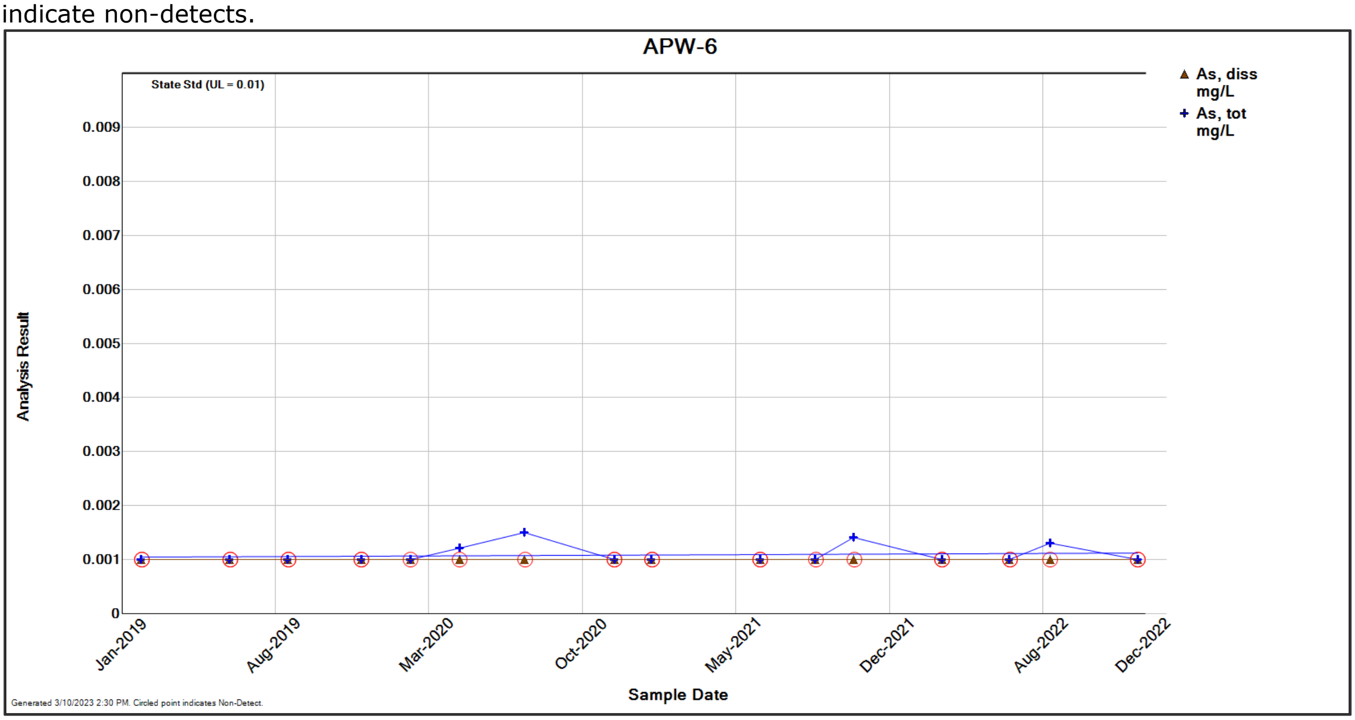


Figure 1-20. Arsenic (dissolved and total) concentrations since 2019 at midgradient well APW-6. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.

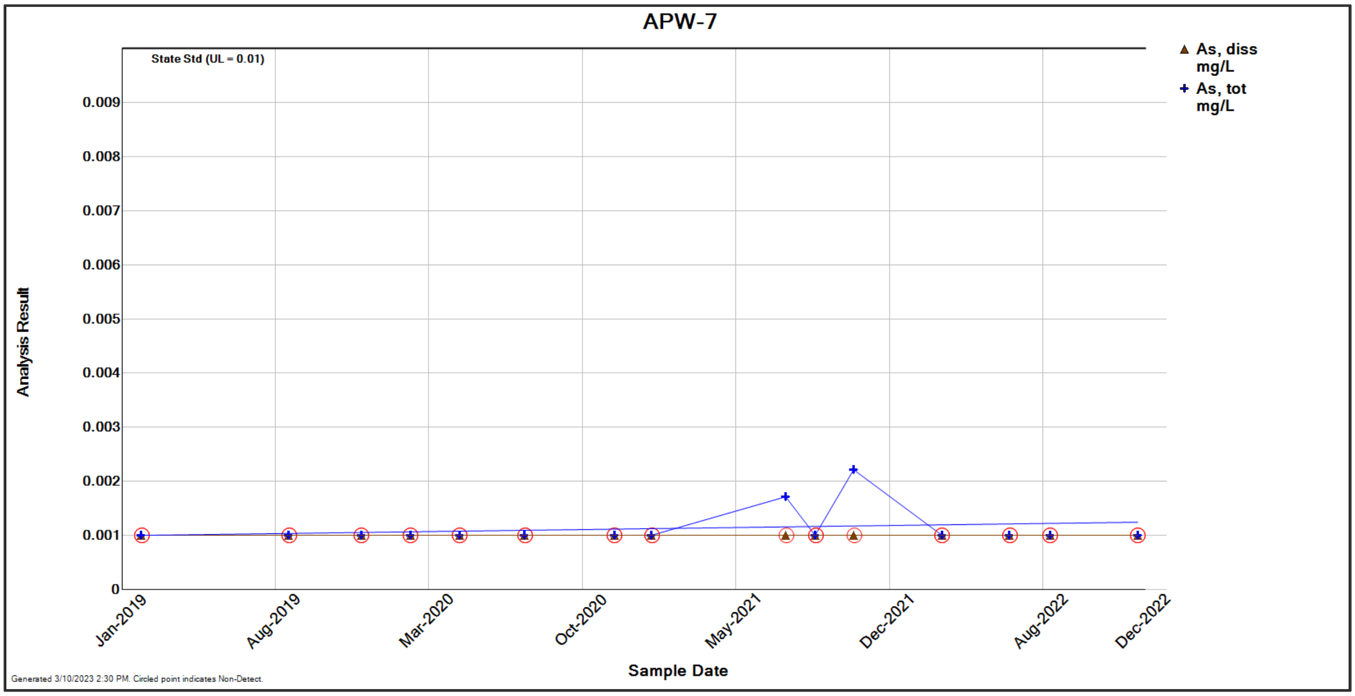


Figure 1-21. Arsenic (dissolved and total) concentrations since 2019 at midgradient well APW-7. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.

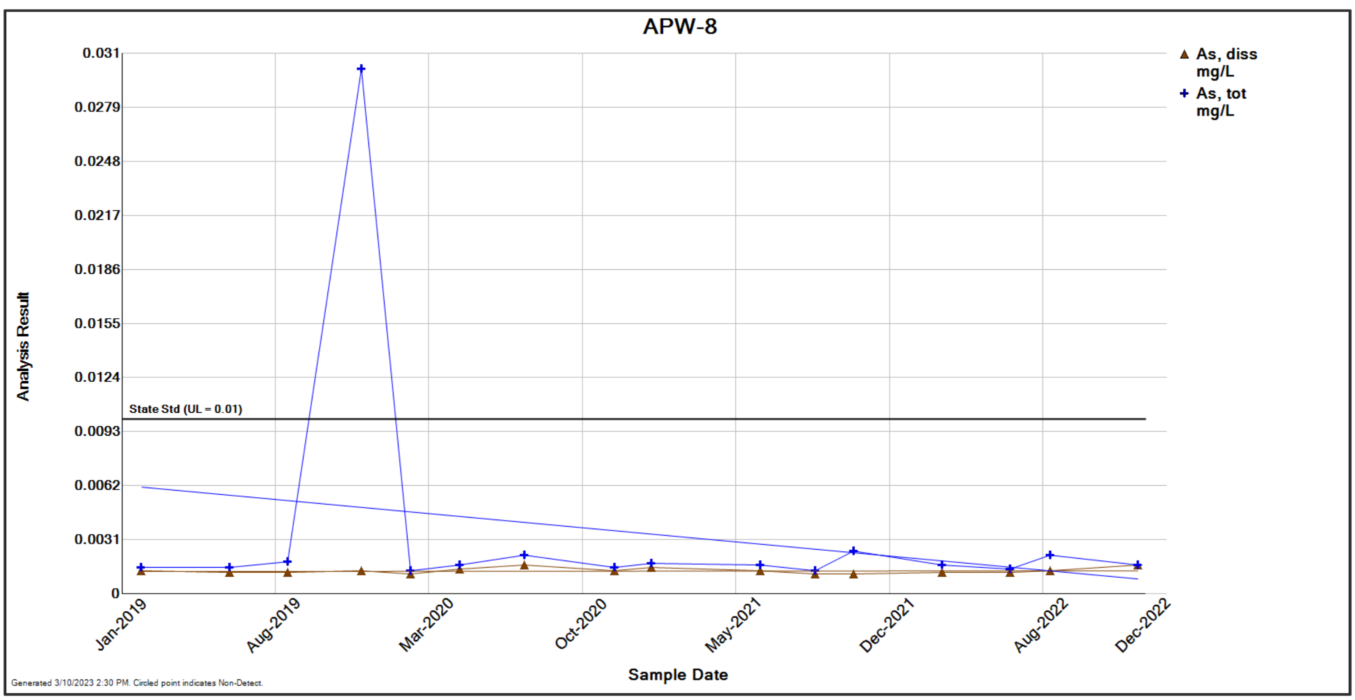


Figure 1-22. Arsenic (dissolved and total) concentrations since 2019 at midgradient well APW-8. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

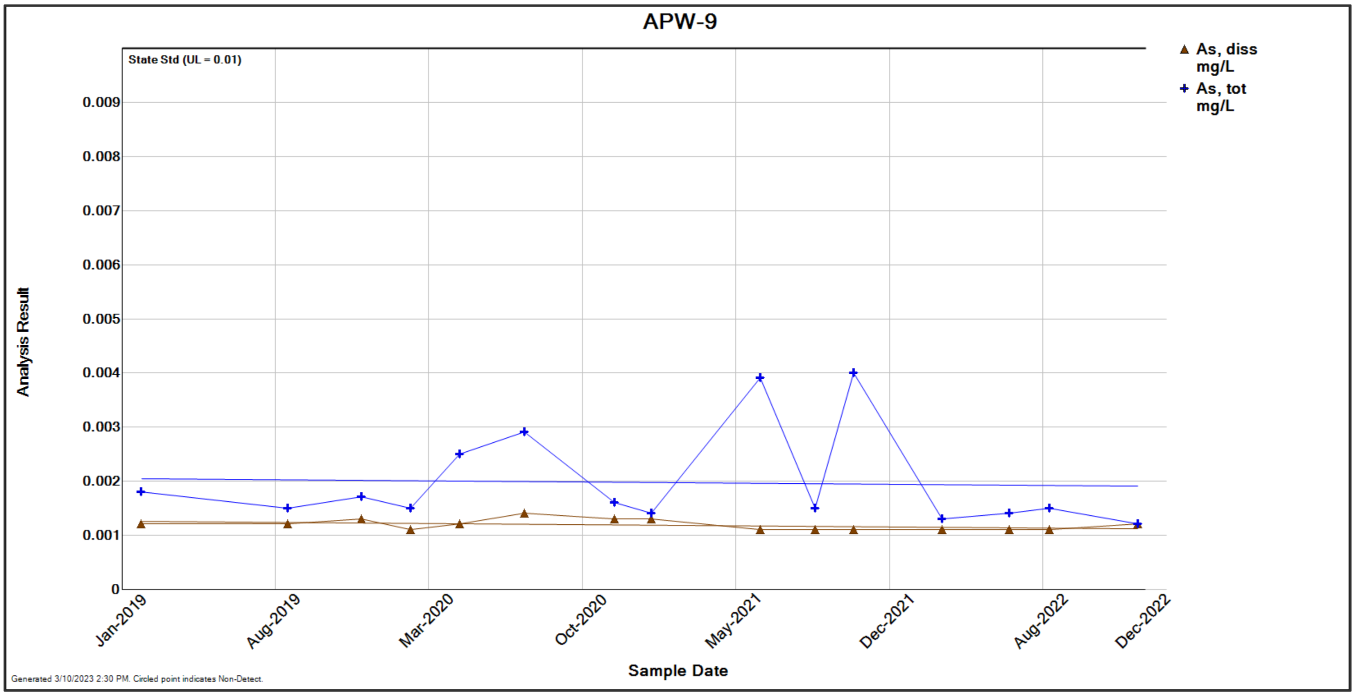


Figure 1-23. Arsenic (dissolved and total) concentrations since 2019 at downgradient well APW-9. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

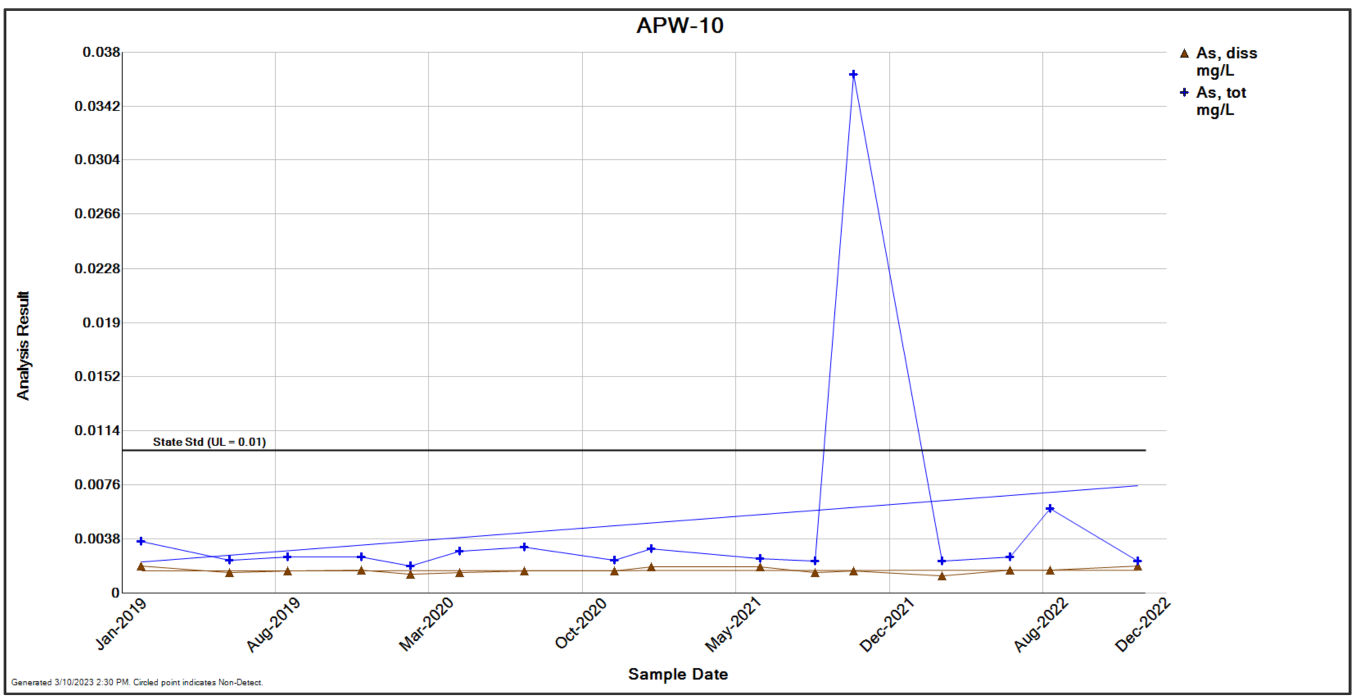


Figure 1-24. Arsenic (dissolved and total) concentrations since 2019 at midgradient well APW-10. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only.

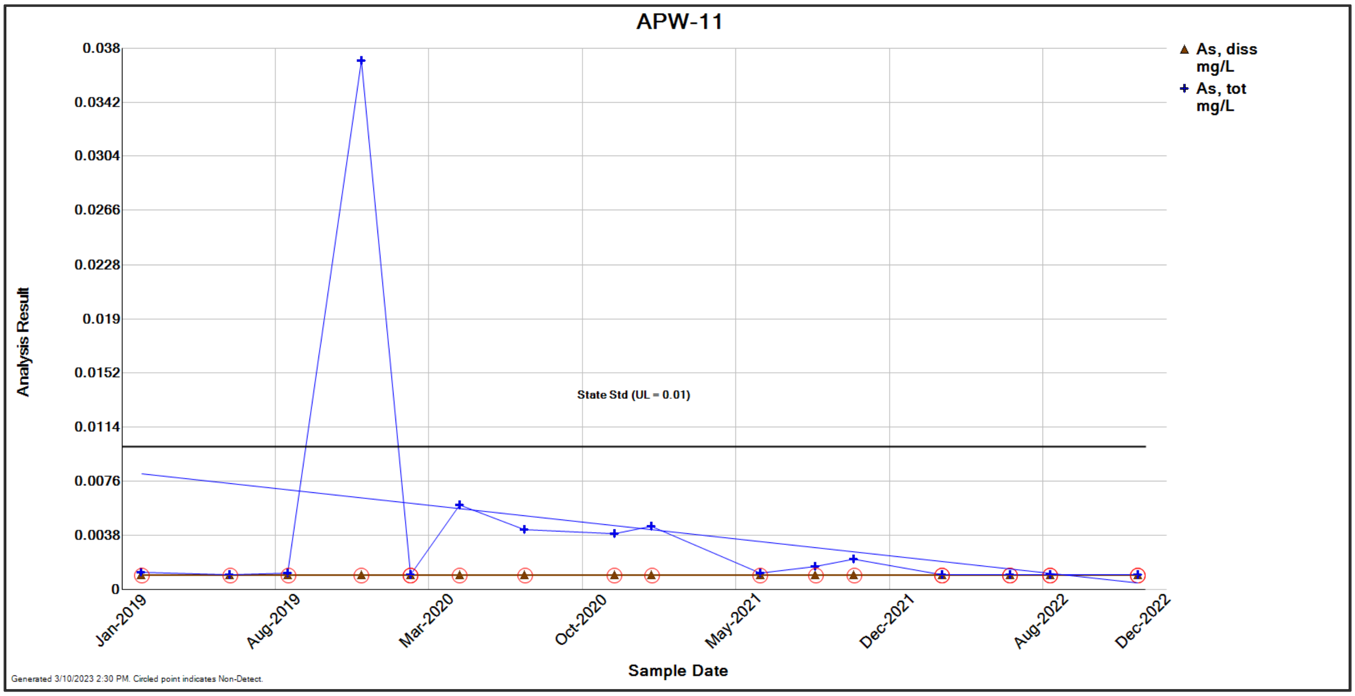


Figure 1-25. Arsenic (dissolved and total) concentrations since 2019 at upgradient APW-11. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.

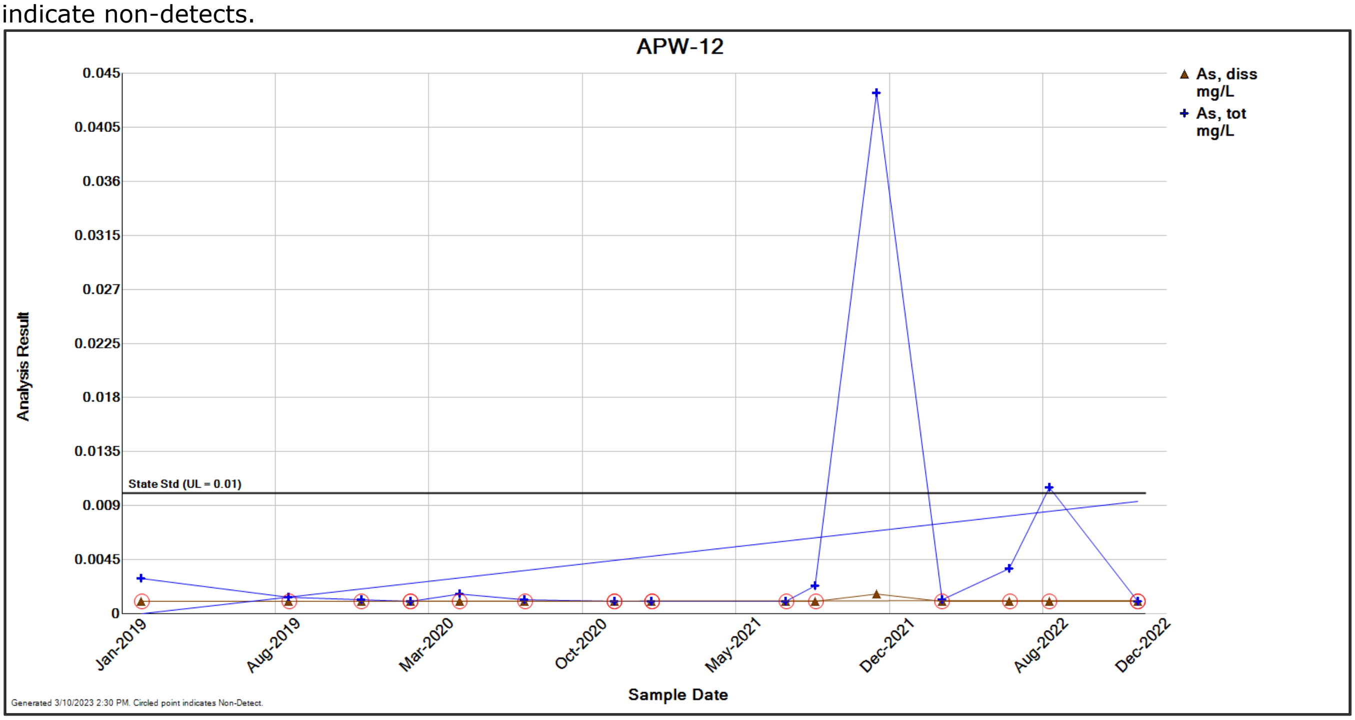
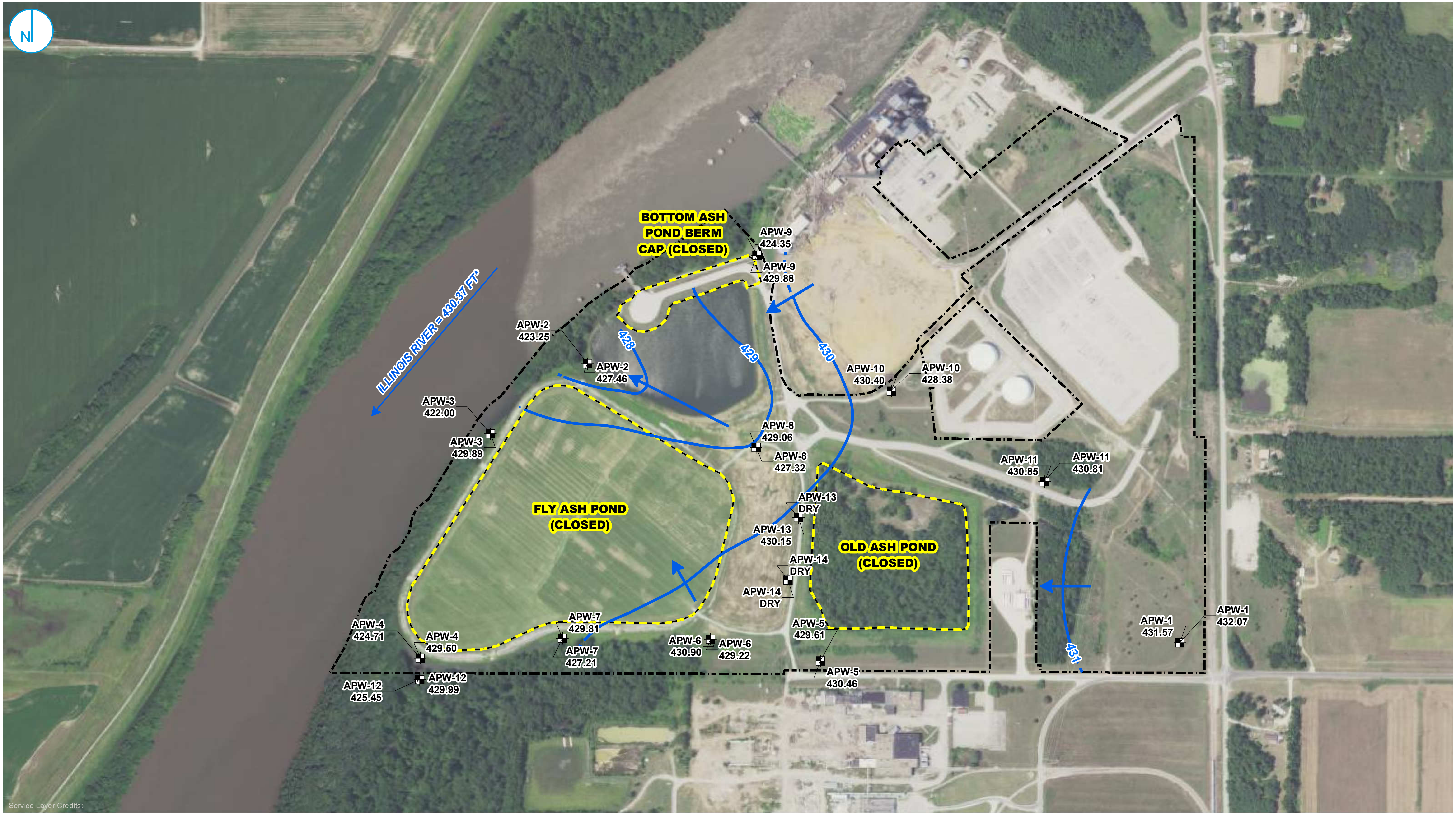


Figure 1-26. Arsenic (dissolved and total) concentrations since 2019 at downgradient APW-12. The Class I Groundwater Standard is not applicable within the GMZ and is shown for reference only. Circled results indicate non-detects.



Y:\Mapping\Projects\6\67815\mxd\2022\Figure 3-1_MW GWEs_2203.mxd

PROJECT: 72694 | DATED: 3/16/2023 | DESIGNER: GALARNMC

MONITORING WELL LOCATION

GROUNDWATER ELEVATION CONTOUR (1-FT INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

APPROXIMATE PROPERTY BOUNDARY

LIMITS OF CCP MANAGEMENT

*River Elevation obtained from United States Geological Survey 05585500 Meredosia, IL gaging station. The elevation was reported in NGVD29 and then converted to NAVD88 at the time of this drawing.

[1]= Groundwater Elevation Not Used For Contouring

[2]= Well Dry, Groundwater Level Below Bottom of Well Elevation Shown

NGVD29 = National Geodetic Vertical Datum of 1929

NAVD88 = North American Vertical Datum of 1988

0 240 480 Feet

NOTE

Base map property lines were updated based on March 2019 Plat of Survey.

GROUNDWATER ELEVATIONS - MARCH 17, 2022

2022 GROUNDWATER MONITORING ANNUAL REPORT
AMEREN ENERGY RESOURCES
MEREDOSIA POWER STATION
MORGAN COUNTY, ILLINOIS

FIGURE 3-1

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

Y:\Mapping\Projects\6\67815\mxd\2022\Figure 3-2_MW GWEs_2206.mxd

PROJECT: 72694 | DATED: 3/16/2023 | DESIGNER: GALARNMC

MONITORING WELL LOCATION

GROUNDWATER ELEVATION CONTOUR (1-FT INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

0 240 480 Feet

APPROXIMATE PROPERTY BOUNDARY

LIMITS OF CCP MANAGEMENT

*River Elevation obtained from United States Geological Survey 05585500 Meredosia, IL gaging station. The elevation was reported in NGVD29 and then converted to NAVD88 at the time of this drawing.
NM= Groundwater Elevation Not Measured Due to Flooding
NGVD29 = National Geodetic Vertical Datum of 1929
NAVD88 = North American Vertical Datum of 1988

NOTE
Base map property lines were updated based on March 2019 Plat of Survey.

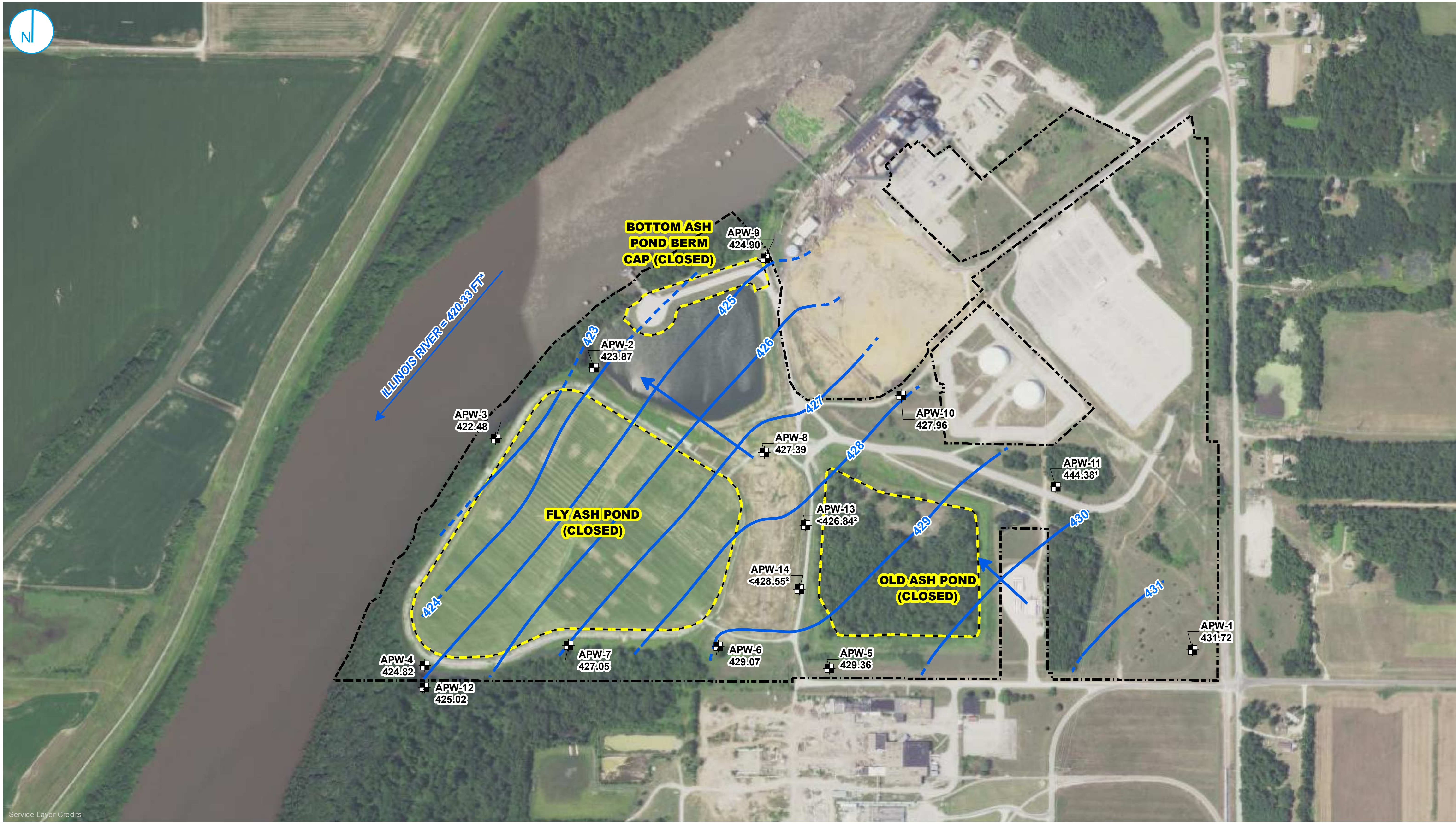
GROUNDWATER ELEVATIONS - JUNE 21-22, 2022

2022 GROUNDWATER MONITORING ANNUAL REPORT
AMEREN ENERGY RESOURCES
MEREDOSIA POWER STATION
MORGAN COUNTY, ILLINOIS

FIGURE 3-2

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL



PROJECT: 72694 | DATED: 3/16/2023 | DESIGNER: GALARNMC

Y:\Mapping\Projects\6\67815\mxd\2022\Figure 3-3_MW GWEs_2208.mxd

MONITORING WELL LOCATION

GROUNDWATER ELEVATION CONTOUR (1-FT INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

APPROXIMATE PROPERTY BOUNDARY

LIMITS OF CCP MANAGEMENT

*River Elevation obtained from United States Geological Survey 05585500 Meredosia, IL gaging station. The elevation was reported in NGVD29 and then converted to NAVD88 at the time of this drawing.

[1]= Groundwater Elevation Not Used For Contouring

[2]= Well Dry, Groundwater Level Below Bottom of Well Elevation Shown

NGVD29 = National Geodetic Vertical Datum of 1929

NAVD88 = North American Vertical Datum of 1988

0 240 480 Feet

NOTE

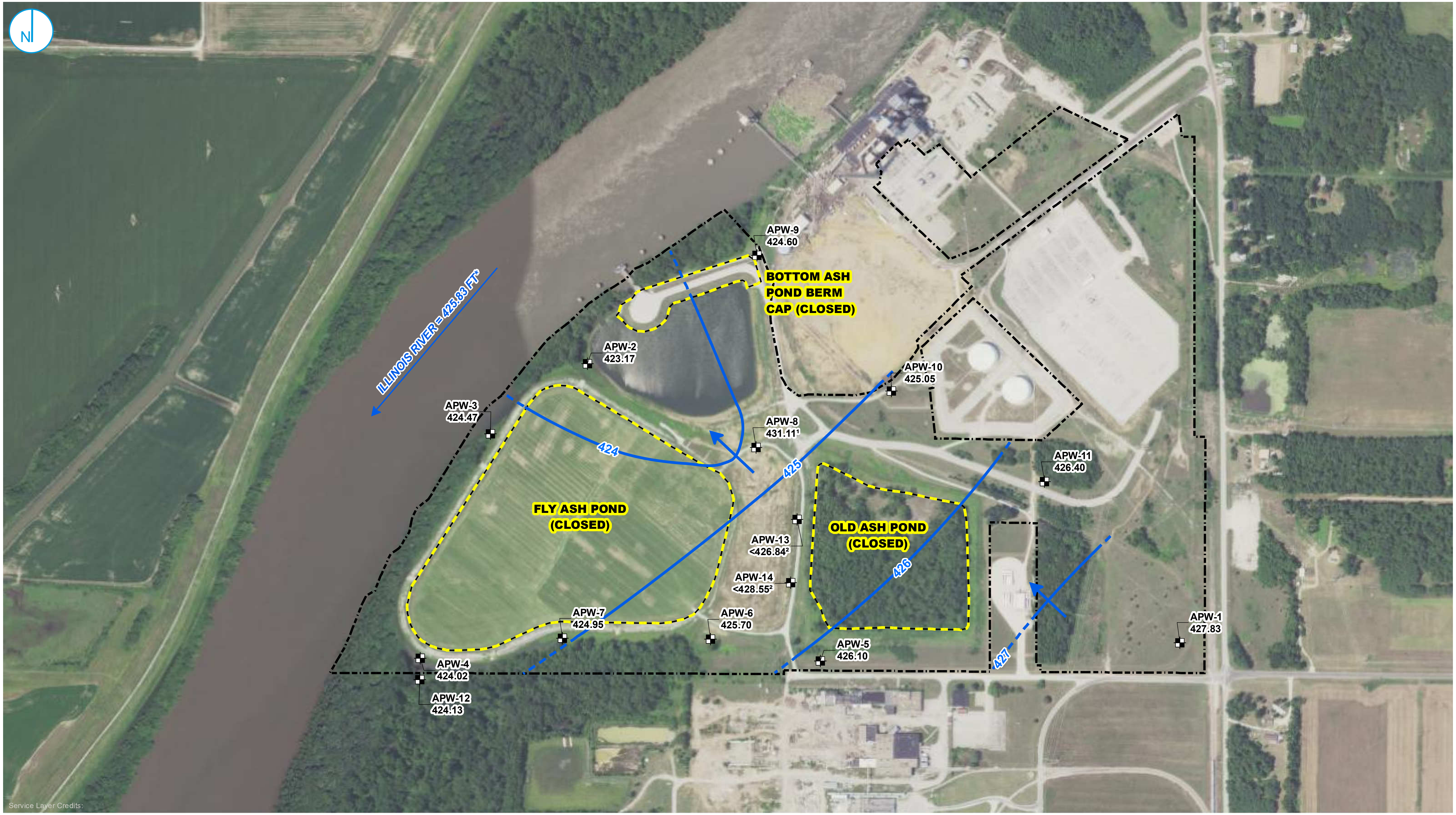
Base map property lines were updated based on March 2019 Plat of Survey.

GROUNDWATER ELEVATIONS - AUGUST 17-18, 2022

FIGURE 3-3

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

2022 GROUNDWATER MONITORING ANNUAL REPORT
AMEREN ENERGY RESOURCES
MEREDOSIA POWER STATION
MORGAN COUNTY, ILLINOIS



Y:\Mapping\Projects\6\67815\mxd\2022\Figure 3-4_MW GWEs_2212.mxd

PROJECT: 72694 | DATED: 3/16/2023 | DESIGNER: GALARNMC

MONITORING WELL LOCATION

GROUNDWATER ELEVATION CONTOUR (1-FT INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

0 240 480 Feet

APPROXIMATE PROPERTY BOUNDARY

LIMITS OF CCP MANAGEMENT

*River Elevation obtained from United States Geological Survey 05585500 Meredosia, IL gaging station. The elevation was reported in NGVD29 and then converted to NAVD88 at the time of this drawing.
¹= Groundwater Elevation Not Used For Contouring
²= Well Dry, Groundwater Level Below Bottom of Well Elevation Shown
NGVD29 = National Geodetic Vertical Datum of 1929
NAVD88 = North American Vertical Datum of 1988

NOTE
Base map property lines were updated based on March 2019 Plat of Survey.

GROUNDWATER ELEVATIONS - DECEMBER 21, 2022

2022 GROUNDWATER MONITORING ANNUAL REPORT
AMEREN ENERGY RESOURCES
MEREDOSIA POWER STATION
MORGAN COUNTY, ILLINOIS

FIGURE 3-4

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

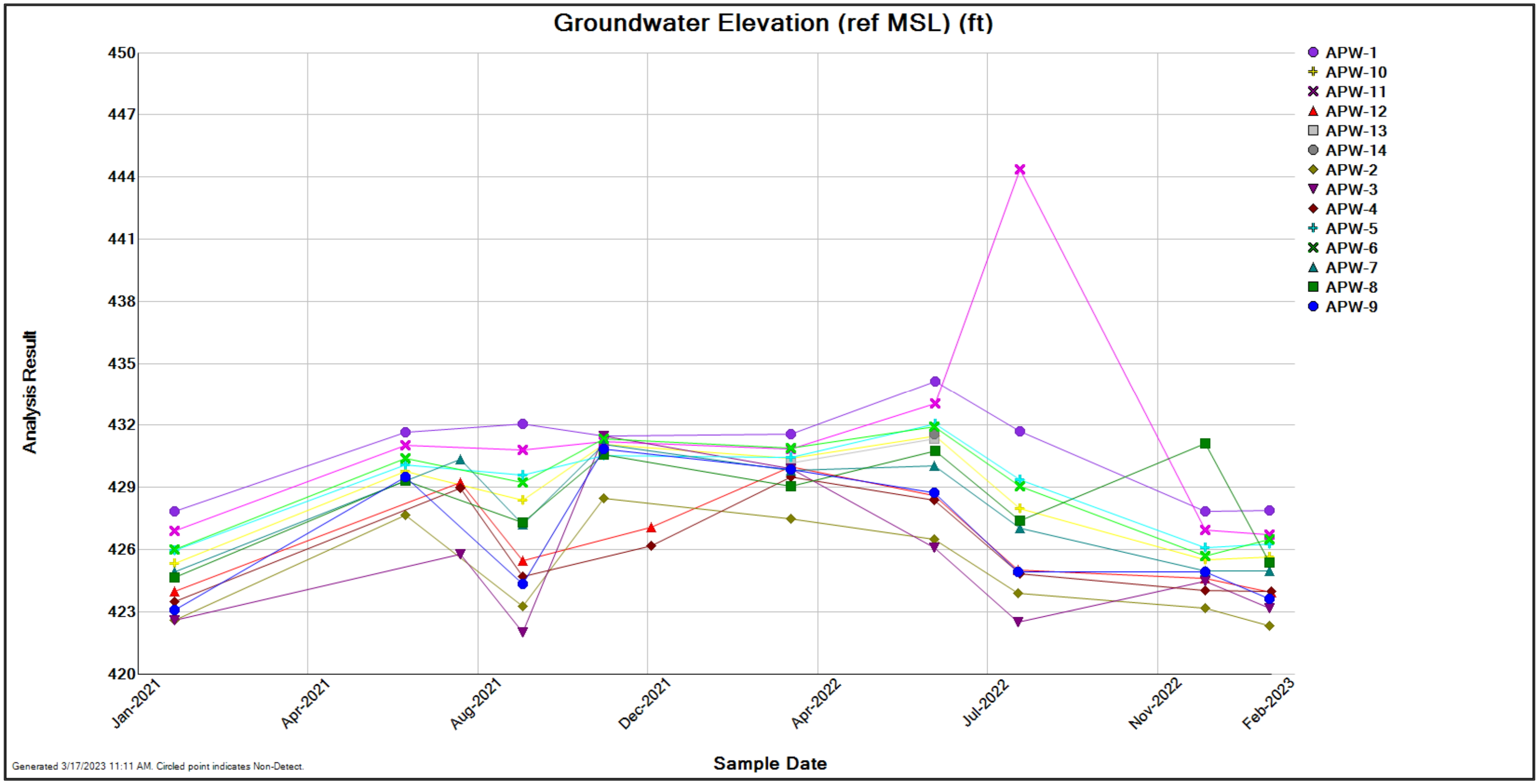


Figure 3-5. Groundwater elevations timeseries plot

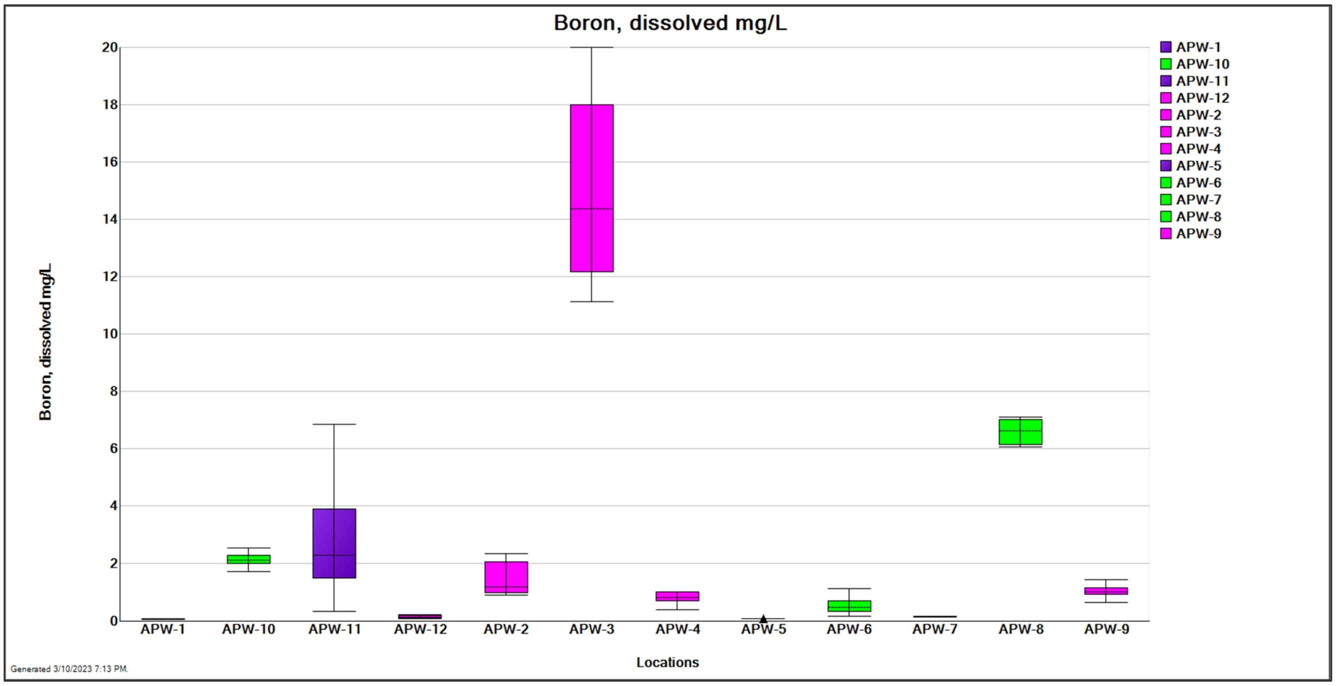


Figure 3-6. Box-whisker plot showing distribution of **dissolved boron** concentration by monitoring well for data collected in 2021 and 2022. Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the interquartile range (IQR) of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR.

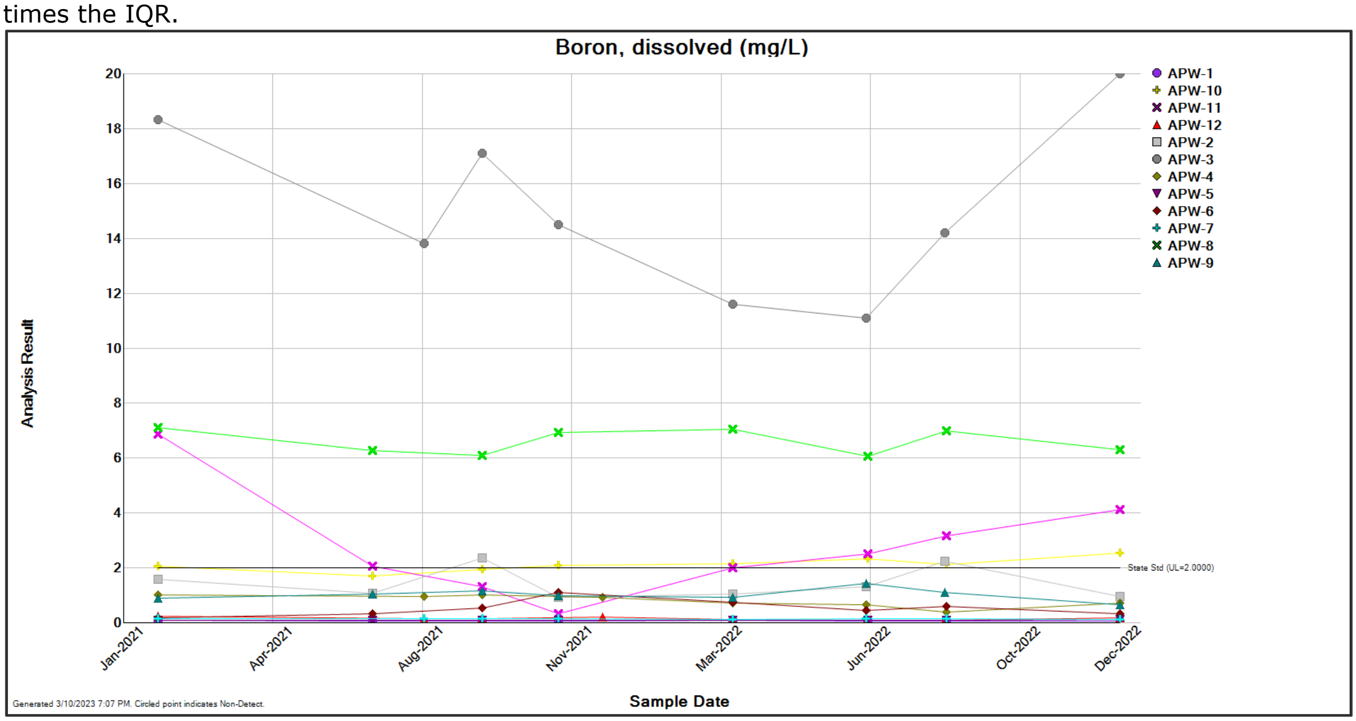


Figure 3-7. Dissolved boron concentrations during the reporting period (2021–2022) at all compliance wells.

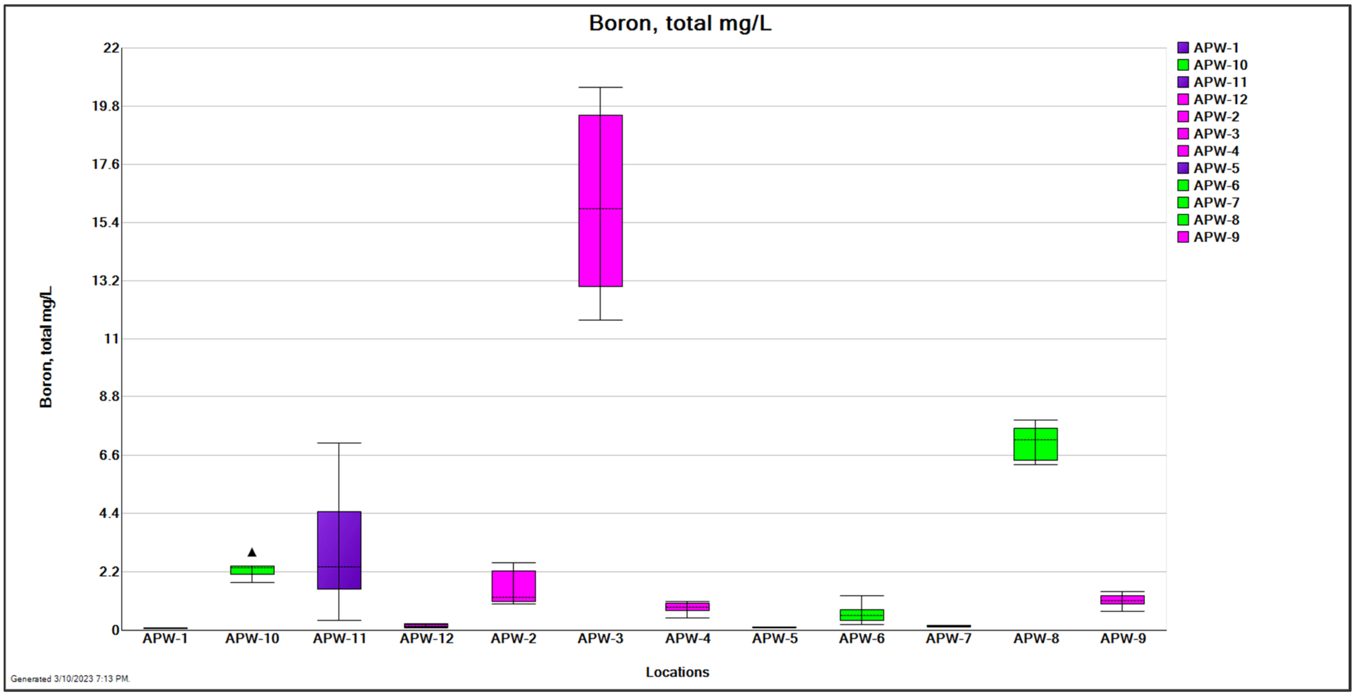


Figure 3-8. Box-whisker plot showing distribution of **total boron** concentration by monitoring well for data collected in 2021 and 2022. Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the IQR of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR.

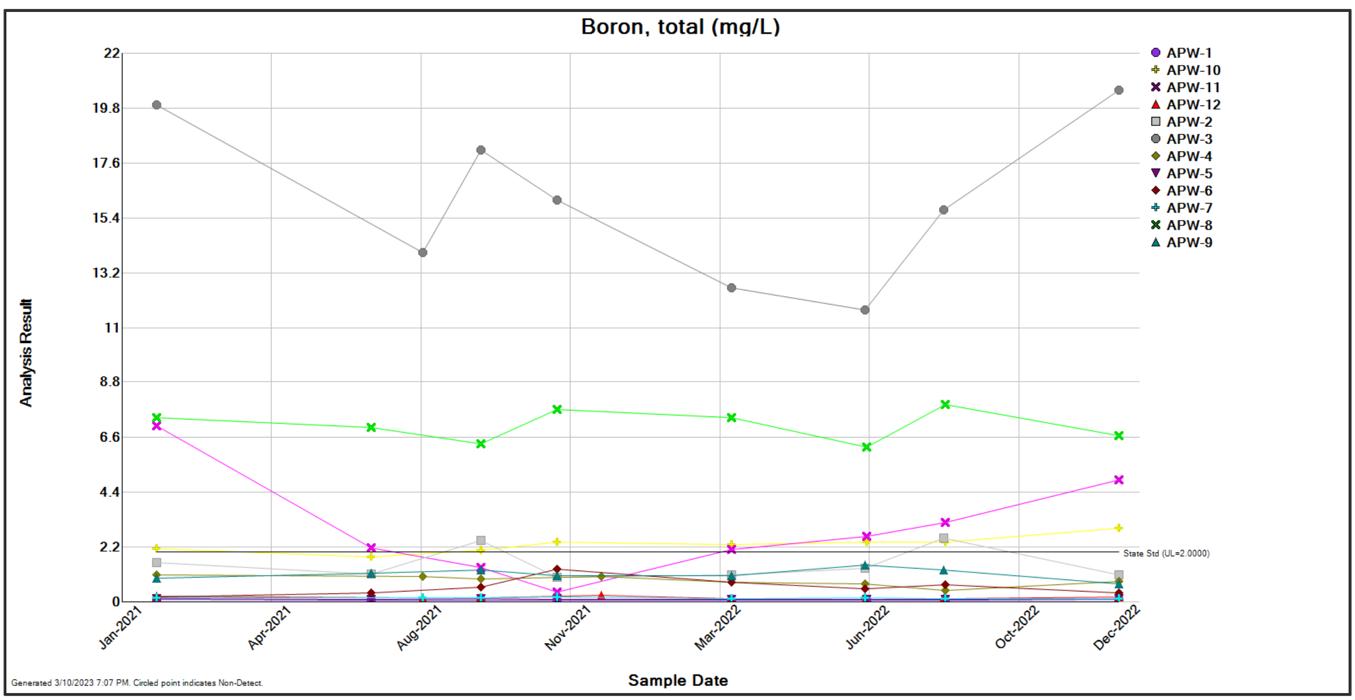


Figure 3-9. Total boron concentrations during the reporting period (2021–2022) at all compliance wells.

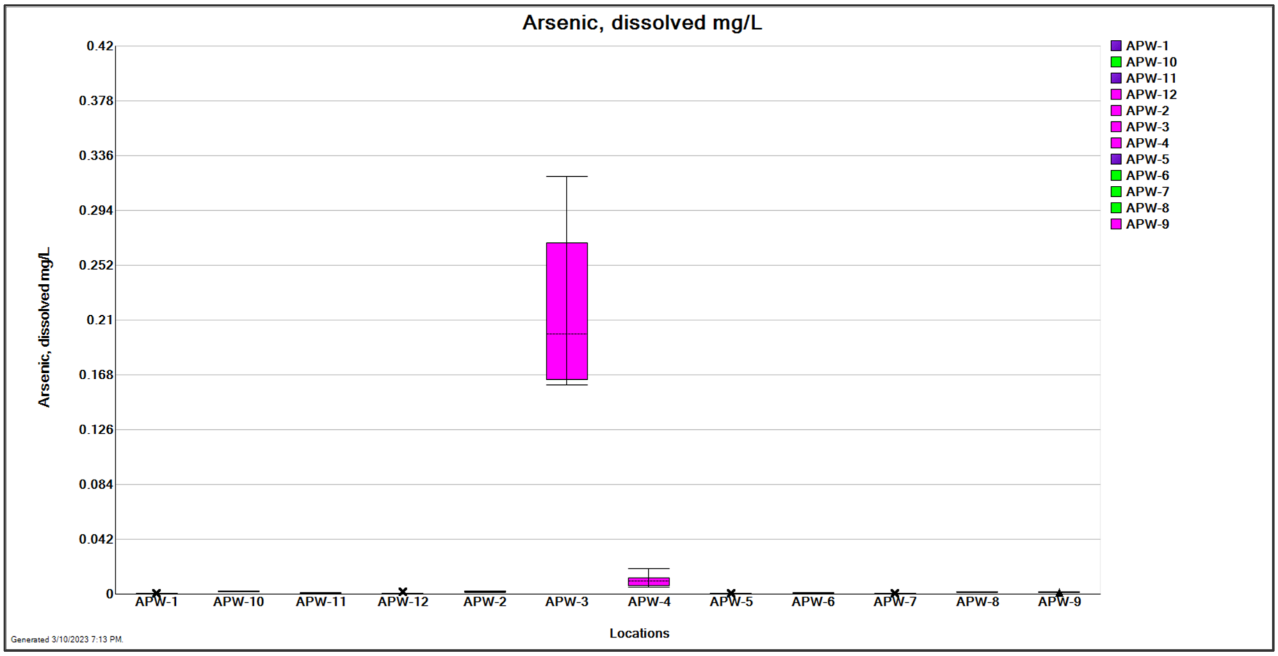


Figure 3-10A. Box-whisker plot showing distribution of **dissolved arsenic** concentration by monitoring well for data collected in 2021 and 2022. Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the IQR of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR.

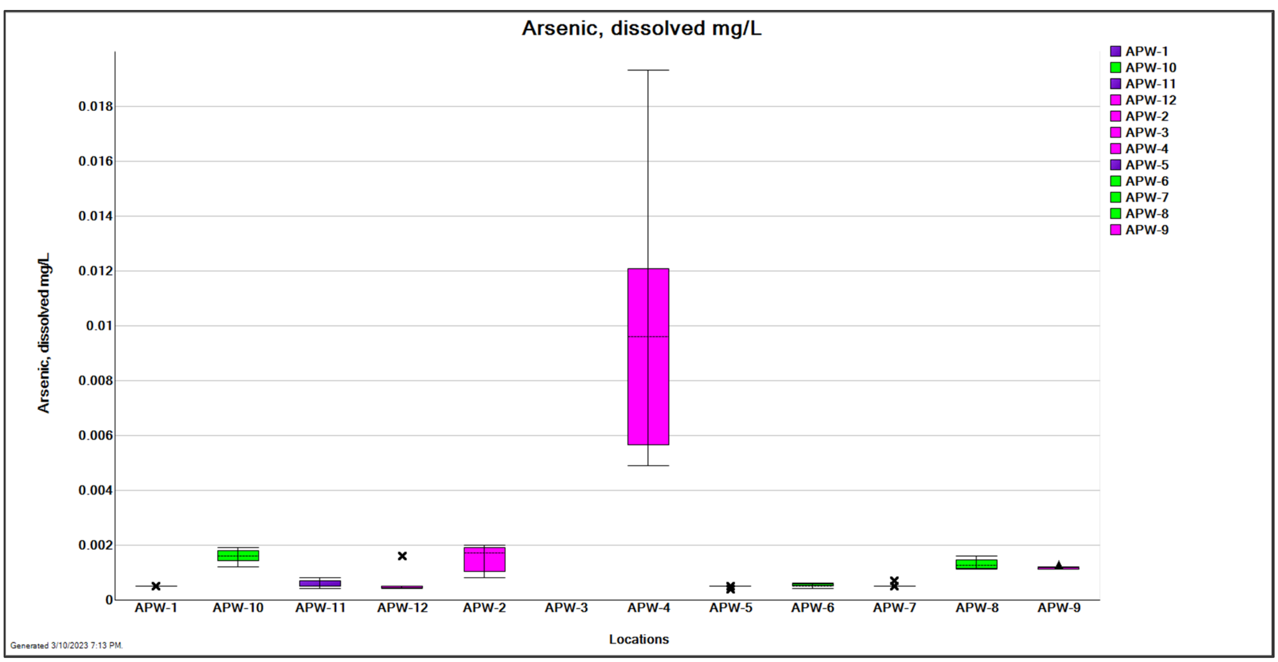


Figure 3-10B. Box-whisker plot showing distribution of **dissolved arsenic** concentration by monitoring well for data collected in 2021 and 2022 (zoomed in). Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the IQR of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR.

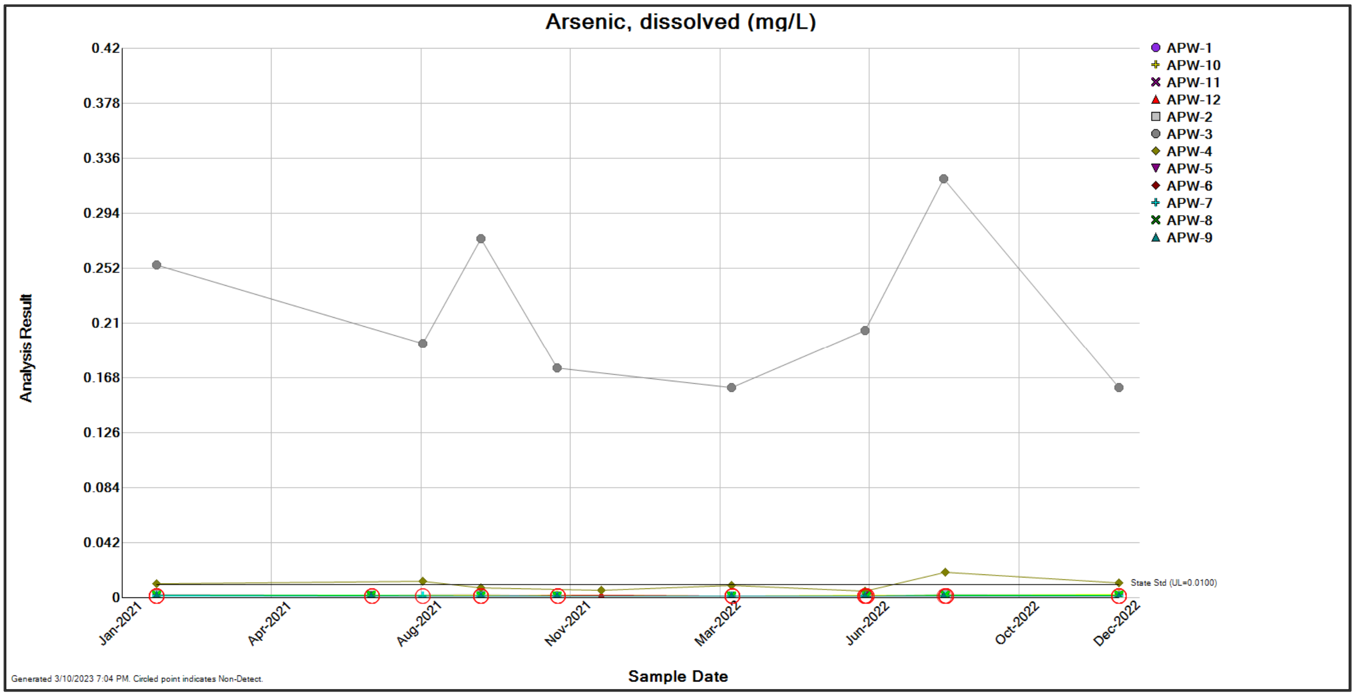


Figure 3-11A. Dissolved arsenic concentrations during the reporting period (2021–2022) at all compliance wells. Circled results indicate non-detects.

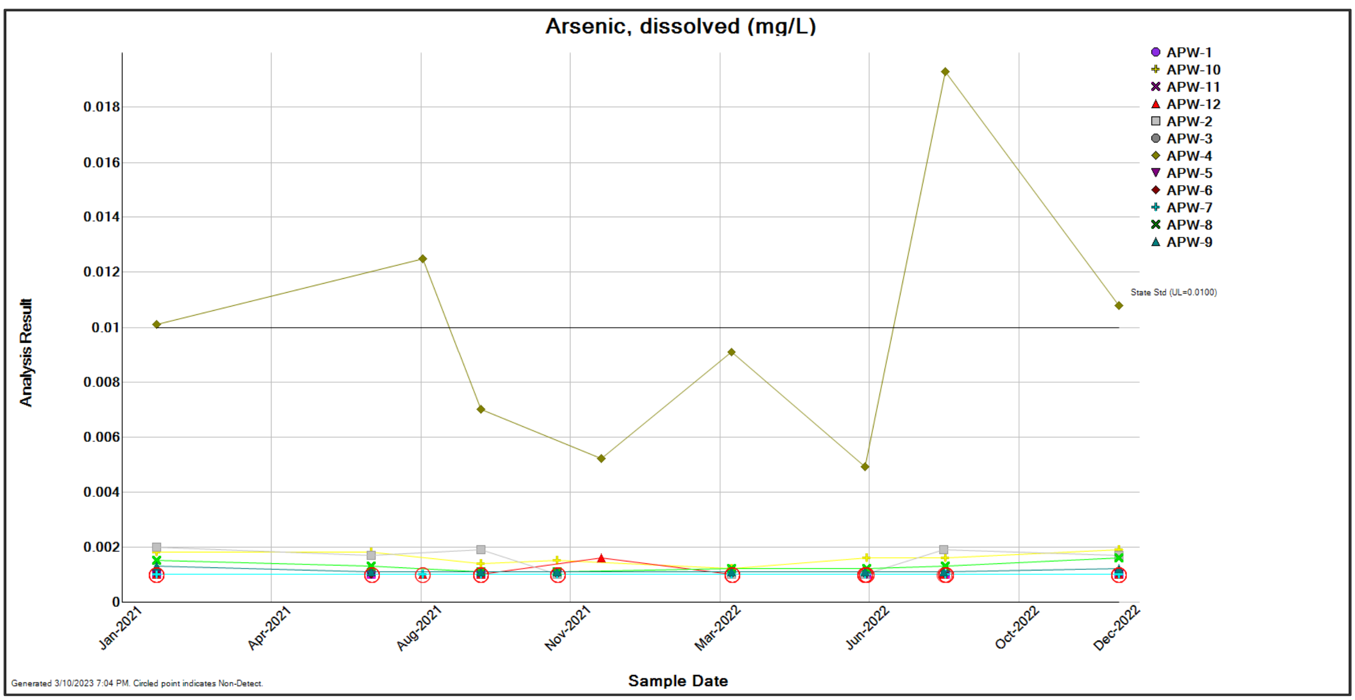


Figure 3-11B. Dissolved arsenic concentrations during the reporting period (2021–2022) at all compliance wells (zoomed in). Circled results indicate non-detects.

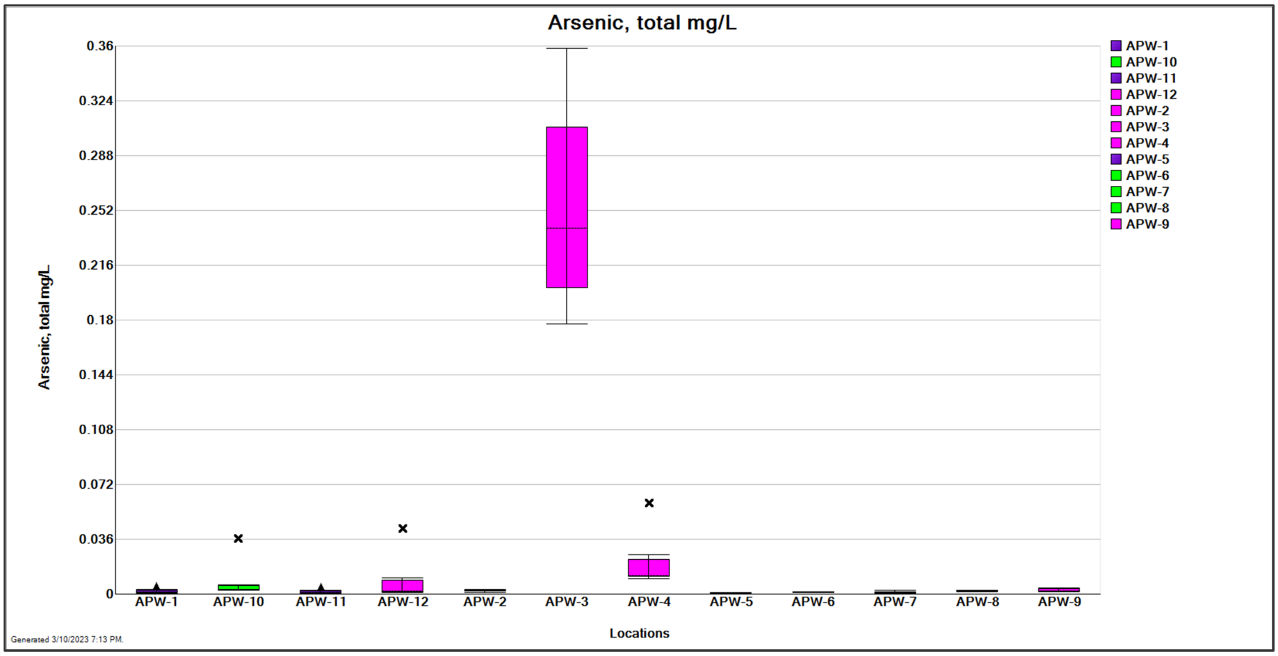


Figure 3-12A. Box-whisker plot showing distribution of **total arsenic** concentration by monitoring well for data collected in 2021 and 2022. Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the IQR of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR

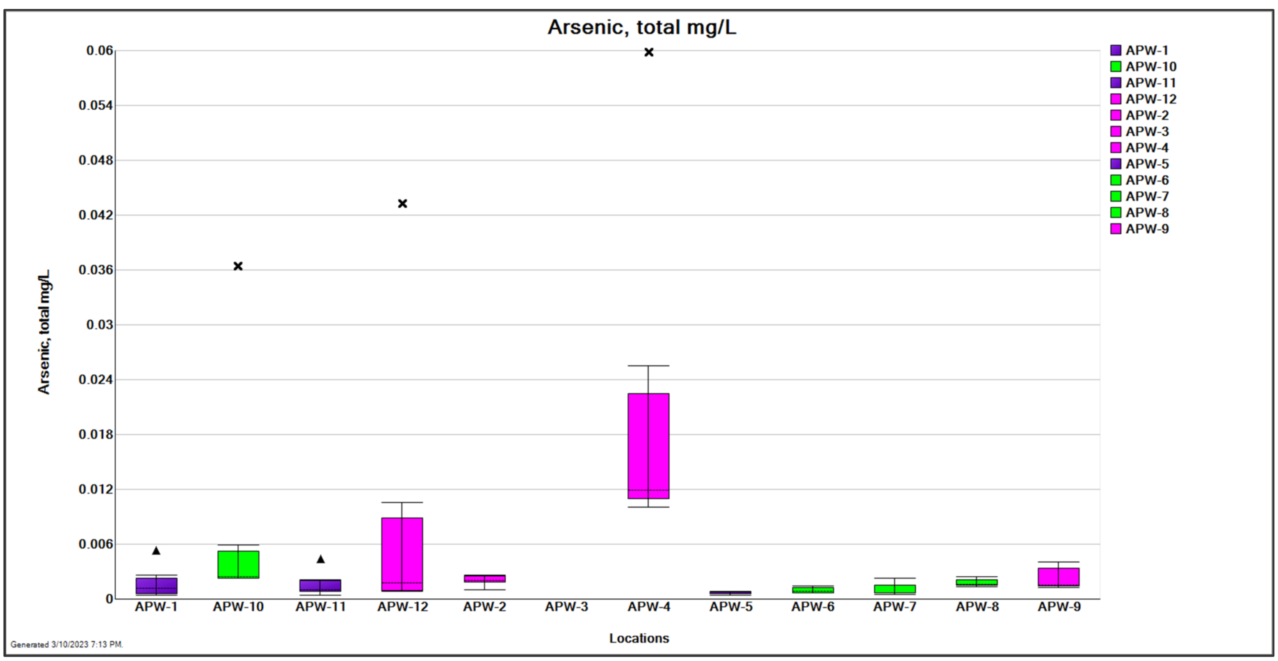


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Figure 3-12B. Box-whisker plot showing distribution of **total arsenic** concentration by monitoring well for data collected in 2021 and 2022 (zoomed in). Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the IQR of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR.

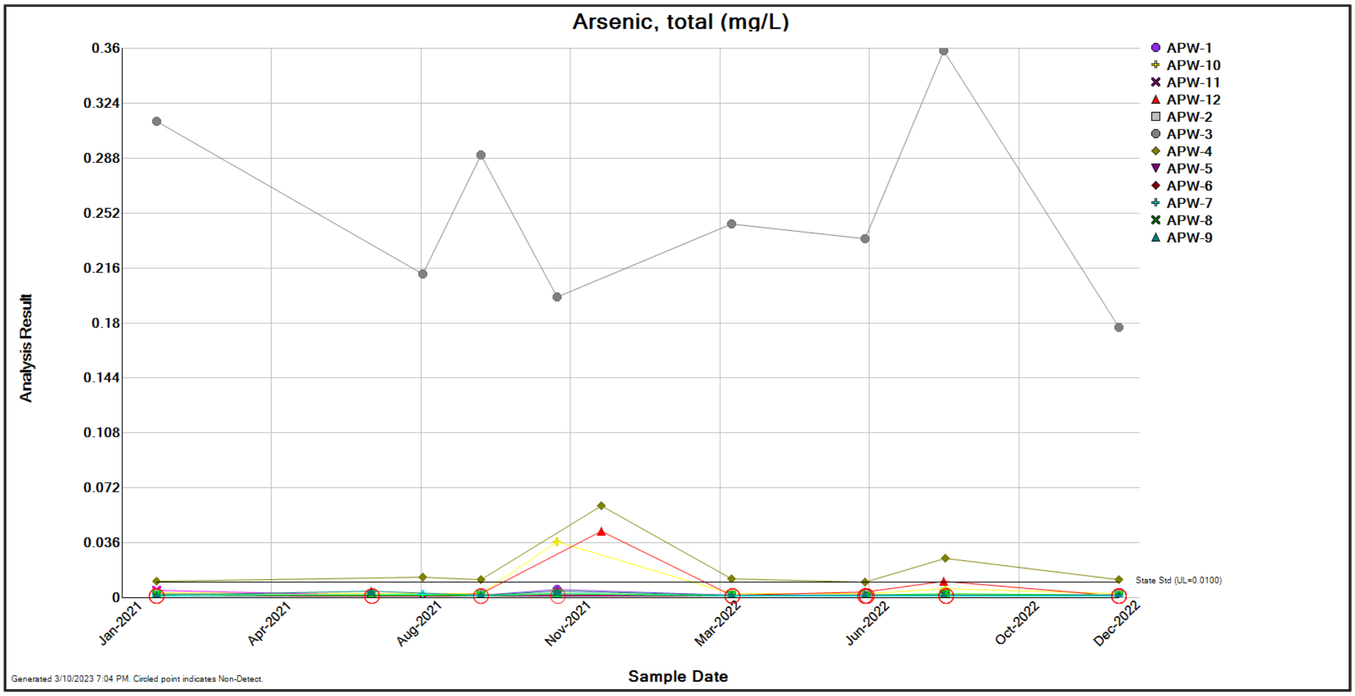

Figure 3-13A. Total arsenic concentrations during the reporting period (2021–2022) at all compliance wells. Circled results indicate non-detects.

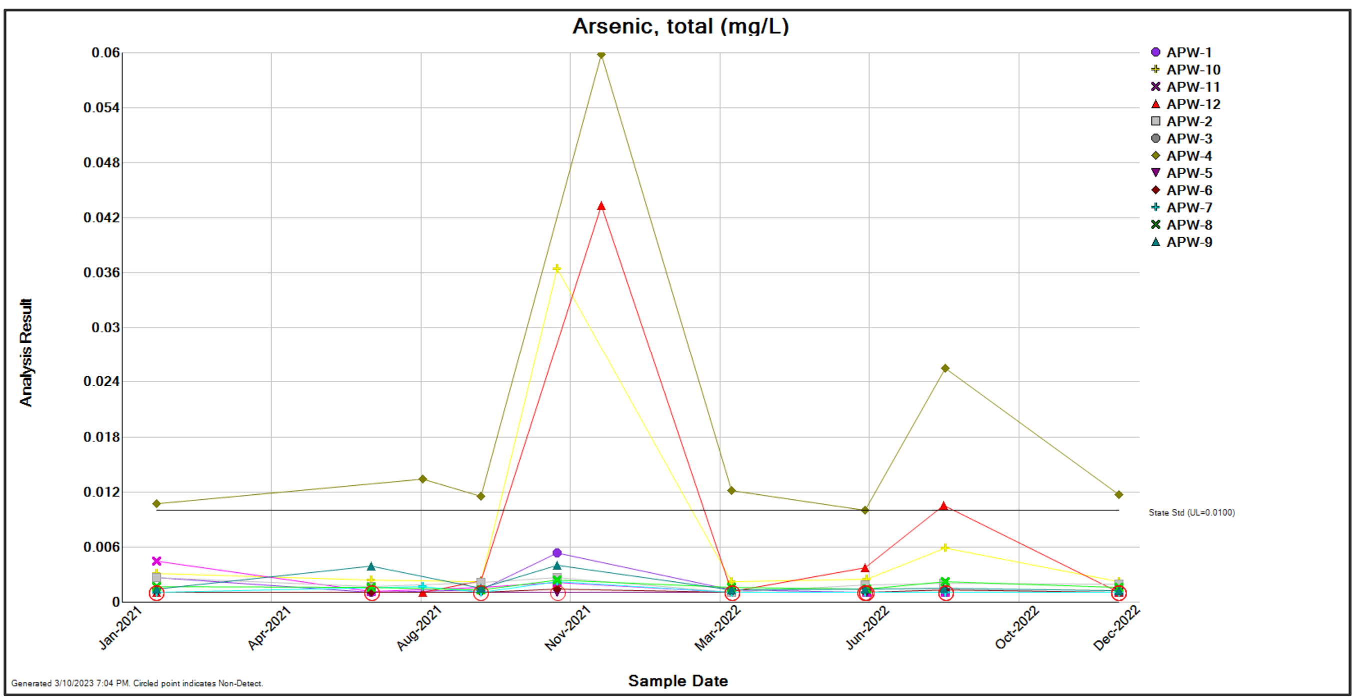

Figure 3-13B. Total arsenic concentrations during the reporting period (2021–2022) at all compliance wells (zoomed in). Circled results indicate non-detects.

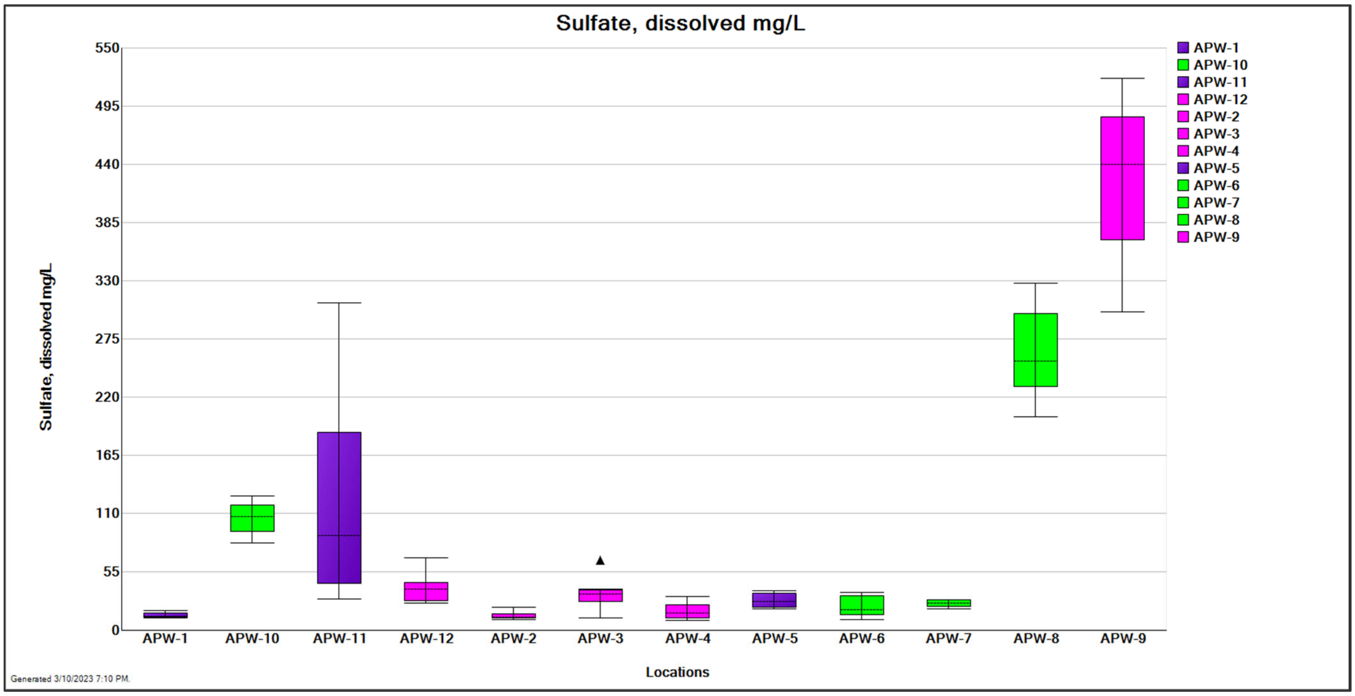

Figure 3-14. Box-whisker plot showing distribution of **dissolved sulfate** concentration by monitoring well for data collected in 2021 and 2022. Note: Box-whisker plots for upgradient wells are purple, for midgradient wells are green, and for downgradient wells are pink. The triangle symbol represents an outlier greater than 1.5 times the IQR of the dataset, the "X" symbol represents an outlier greater than 3 times the IQR.

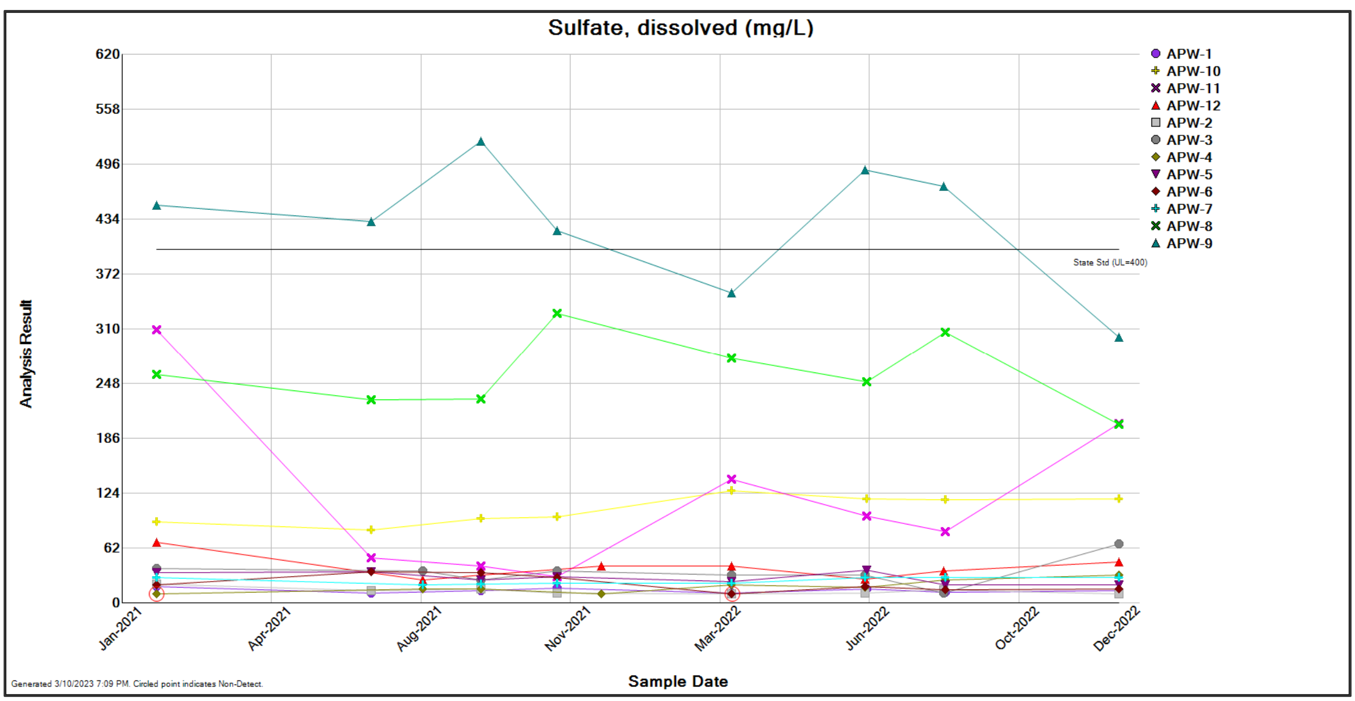

Figure 3-15. Dissolved sulfate concentrations during the reporting period (2021–2022) at all compliance wells. Circled results indicate non-detects.

APPENDIX A
GROUNDWATER MONITORING RESULTS 2021-2022

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-1

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
As, tot, mg/L	0.0026	<0.0010	0.0013	0.0053	0.0013	<0.0010	<0.0010	<0.0010
B, diss, mg/L	0.0739	0.0559	0.0427	0.0483	0.0619	0.0553	0.0402	0.0585
B, tot, mg/L	0.0839	0.0572	0.0492	0.0563	0.0604	0.0577	0.0410	0.0719
Ba, diss, mg/L	0.0140	0.0232	0.0179	0.0110	0.0094	0.0193	0.0131	0.0090
Ba, tot, mg/L	0.0251	0.0250	0.0242	0.0378	0.0159	0.0238	0.0165	0.0130
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	39.0	100.0	111.0	91.0	46.0	159.0	84.0	42.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	0.0076	<0.0050	<0.0050	0.0182	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0067	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	0.0068	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	0.0061	<0.0050	<0.0050	0.0115	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.14	0.13	0.21	0.29	0.23	0.23	0.33	0.30
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	3.5200	0.4960	1.4000	8.3100	1.6400	0.9330	0.6240	0.4690
GW Elv, ft	427.82	431.64	432.07	431.48	431.57	434.14	431.72	427.83
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.3290	0.0442	0.1450	0.8870	0.1110	0.1190	0.0687	0.0429
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	0.0127	<0.0050	0.0066	0.0315	0.0069	0.0053	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	4.810	4.280	3.710	3.600	4.350	2.290	6.110	3.220
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	0.0047	<0.0010	0.0028	0.0095	0.0018	0.0016	<0.0010	<0.0010
pH (field), STD	7.00	6.36	7.02	7.04	6.93	6.93	6.84	7.02
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-1

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	18	11	13	16	11	15	12	13
Spec. Cond. (field), micromho	441	629	1030	555	491	685	711	564
TDS, mg/L	252	298	374	348	208	420	392	240
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0104	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	0.0148	<0.0100	<0.0100	0.0276	<0.0100	<0.0100	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-2

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	0.0020	0.0017	0.0019	0.0010	<0.0010	<0.0010	0.0019	0.0017
As, tot, mg/L	0.0026	0.0017	0.0021	0.0026	0.0010	0.0018	0.0020	0.0019
B, diss, mg/L	1.5600	1.0600	2.3300	0.9010	1.0300	1.3000	2.2200	0.9390
B, tot, mg/L	1.5700	1.0900	2.4400	0.9810	1.0800	1.3400	2.5400	1.0600
Ba, diss, mg/L	0.0482	0.0390	0.0602	0.0368	0.0357	0.0417	0.0544	0.0375
Ba, tot, mg/L	0.0598	0.0374	0.0714	0.0677	0.0398	0.0573	0.0639	0.0500
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	10.0	4.0	19.0	2.0	2.0	8.0	17.0	<4.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.25	0.32	0.28	0.37	0.30	0.29	0.26	0.31
Fe, diss, mg/L	<0.0400	<0.0400	0.3470	<0.0400	<0.0400	<0.0400	0.0409	<0.0400
Fe, tot, mg/L	1.2200	0.0689	1.5800	3.9800	0.2900	2.0800	1.0800	0.5080
GW Elv, ft	422.60	427.67	423.25	428.45	427.46	426.48	423.87	423.17
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	0.1740	0.2170	0.4860	0.1270	0.0519	0.1710	0.4400	0.0834
Mn, tot, mg/L	0.1870	0.2200	0.5490	0.1870	0.0743	0.2710	0.5330	0.1440
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	<0.0050	0.0052	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013
Pb, tot, mg/L	<0.0010	<0.0010	<0.0010	0.0020	<0.0010	0.0012	<0.0010	<0.0010
pH (field), STD	7.00	6.65	6.79	6.80	6.84	6.98	6.84	6.87
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	0.0041	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-2

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	21	13	15	11	10	11	14	10
Spec. Cond. (field), micromho	606	607	1110	487	684	479	793	704
TDS, mg/L	368	306	466	298	300	356	492	332
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0265	<0.0100	<0.0100	<0.0100	<0.0100

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Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-3

	1/26/2021	8/6/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	0.2540	0.1940	0.2740	0.1750	0.1600	0.2040	0.3200	0.1600
As, tot, mg/L	0.3120	0.2120	0.2900	0.1970	0.2450	0.2350	0.3580	0.1770
B, diss, mg/L	18.3000	13.8000	17.1000	14.5000	11.6000	11.1000	14.2000	20.0000
B, tot, mg/L	19.9000	14.0000	18.1000	16.1000	12.6000	11.7000	15.7000	20.5000
Ba, diss, mg/L	0.0901	0.1050	0.0952	0.0810	0.0895	0.0701	0.0716	0.1140
Ba, tot, mg/L	0.1180	0.1020	0.1060	0.1520	0.1100	0.1150	0.1140	0.1570
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	22.0	19.0	19.0	18.0	16.0	17.0	17.0	26.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0070	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.16	0.20	0.22	0.25	0.20	0.20	0.20	0.18
Fe, diss, mg/L	2.5200	3.2700	3.0300	1.4800	4.4500	1.9500	1.5500	3.7200
Fe, tot, mg/L	4.8400	5.3800	4.1000	10.7000	6.0000	7.7400	6.5600	6.7000
GW Elv, ft	422.58	425.79	422.00	431.46	429.89	426.09	422.48	424.47
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	0.8750	0.9760	0.8660	0.8430	1.0700	1.0200	0.9800	1.0700
Mn, tot, mg/L	0.9660	1.0100	0.9210	1.0700	1.1700	1.1600	1.1200	1.3100
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0077	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	0.0010	0.0011	<0.0010	0.0039	<0.0010	0.0020	0.0011	0.0018
pH (field), STD	7.40	7.17	7.36	7.24	7.24	7.35	7.45	7.28
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-3

	1/26/2021	8/6/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	38	36	25	36	31	31	11	66
Spec. Cond. (field), micromho	1030	1100	1400	978	1310	772	1030	1430
TDS, mg/L	720	678	672	646	636	612	676	760
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	0.0021	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0229	<0.0100	0.0131	<0.0100	0.0122

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-4

	1/26/2021	8/6/2021	9/17/2021	12/13/2021	3/17/2022	6/21/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	0.0101	0.0125	0.0070	0.0052	0.0091	0.0049	0.0193	0.0108
As, tot, mg/L	0.0107	0.0134	0.0115	0.0598	0.0121	0.0100	0.0255	0.0117
B, diss, mg/L	1.0100	0.9460	1.0000	0.9090	0.6870	0.6520	0.3840	0.6870
B, tot, mg/L	1.0700	1.0000	0.8950	1.0000	0.7730	0.6970	0.4550	0.7960
Ba, diss, mg/L	0.0409	0.0452	0.0336	0.0223	0.0350	0.0335	0.0287	0.0300
Ba, tot, mg/L	0.0478	0.0477	0.0466	0.2860	0.0586	0.0708	0.0669	0.0461
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	29.0	23.0	20.0	20.0	30.0	36.0	53.0	35.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0060	<0.0050	<0.0050	0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0159	0.0069	<0.0050	0.0105	0.0139
F, diss, mg/L	0.38	0.41	0.45	0.40	0.40	0.37	0.38	0.41
Fe, diss, mg/L	9.6200	10.6000	5.8500	1.1400	9.2000	4.5000	7.3600	4.6600
Fe, tot, mg/L	11.3000	10.1000	9.1300	70.3000	14.0000	12.2000	16.2000	6.0900
GW Elv, ft	423.47	428.97	424.71	426.18	429.50	428.37	424.82	424.02
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	1.5800	1.5300	1.4400	1.4200	1.4900	1.3200	1.4400	1.2400
Mn, tot, mg/L	1.6600	1.6200	1.5000	2.2500	1.7000	1.4800	1.7000	1.5300
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	<0.050	<0.050	<0.050	<0.100	<0.050	<0.050	0.210	<0.050
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	<0.0010	<0.0010	<0.0010	0.0052	0.0014	0.0021	0.0038	0.0038
pH (field), STD	6.90	6.77	6.73	6.64	6.92	6.94	6.77	6.85
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-4

	1/26/2021	8/6/2021	9/17/2021	12/13/2021	3/17/2022	6/21/2022	8/18/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	<10	15	15	10	20	17	25	31
Spec. Cond. (field), micromho	711	778	896	842	890	520	613	954
TDS, mg/L	418	428	392	418	396	368	420	444
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0103	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0369	0.0111	0.0133	0.0221	<0.0100

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Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-5

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
As, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
B, diss, mg/L	0.0752	0.0824	0.0785	0.0752	0.0693	0.0730	0.0806	0.0967
B, tot, mg/L	0.1190	0.0866	0.1100	0.0831	0.0826	0.0982	0.0884	0.1040
Ba, diss, mg/L	0.0071	0.0071	0.0055	0.0077	0.0063	0.0085	0.0069	0.0071
Ba, tot, mg/L	0.0078	0.0072	0.0078	0.0105	0.0085	0.0095	0.0085	0.0082
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	7.0	6.0	6.0	5.0	3.0	2.0	2.0	9.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.13	0.15	0.17	0.18	0.17	0.19	0.18	0.22
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	0.0640	<0.0400	0.4670	0.4200	0.4990	0.1080	0.3880	<0.0400
GW Elv, ft	425.96	430.08	429.61	430.52	430.46	432.05	429.36	426.10
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.0089	0.0117	0.0922	0.1090	0.0653	0.0190	0.0688	<0.0070
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	2.780	1.740	2.570	4.290	2.220	2.600	2.310	1.760
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010
Pb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
pH (field), STD	7.30	6.87	7.30	7.19	7.42	7.27	7.38	7.41
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-5

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	34	35	25	29	24	37	20	20
Spec. Cond. (field), micromho	453	523	518	513	580	476	445	642
TDS, mg/L	260	258	216	320	238	330	272	288
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-6

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
As, tot, mg/L	<0.0010	<0.0010	0.0010	0.0014	<0.0010	<0.0010	0.0013	<0.0010
B, diss, mg/L	0.1610	0.3120	0.5230	1.1000	0.7370	0.4230	0.5850	0.3270
B, tot, mg/L	0.1950	0.3500	0.5800	1.2900	0.7800	0.4980	0.6680	0.3300
Ba, diss, mg/L	0.0108	0.0187	0.0168	0.0165	0.0124	0.0136	0.0113	0.0099
Ba, tot, mg/L	0.0116	0.0197	0.0206	0.0226	0.0145	0.0148	0.0140	0.0107
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	6.0	27.0	6.0	3.0	1.0	3.0	1.0	<4.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.11	0.12	0.16	0.11	0.14	0.15	0.16	0.13
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	0.0939	0.1070	0.6200	1.2400	0.4860	0.2420	0.9660	0.1300
GW Elv, ft	426.01	430.40	429.22	431.36	430.90	431.94	429.07	425.70
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070	<0.0070	0.0224	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.0088	0.0135	0.0642	0.0917	0.0279	0.0144	0.0609	0.0081
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	0.374	0.330	0.148	0.330	0.205	0.175	0.253	0.622
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	<0.0010	<0.0010	0.0011	0.0016	<0.0010	<0.0010	0.0013	<0.0010
pH (field), STD	7.00	6.72	6.98	6.91	7.15	7.17	7.27	7.27
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022

Well: APW-6

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/18/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	20	35	34	28	<10	18	14	15
Spec. Cond. (field), micromho	496	749	793	554	606	391	408	593
TDS, mg/L	284	384	338	336	252	272	242	258
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-7

	1/26/2021	8/6/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
As, tot, mg/L	<0.0010	0.0017	<0.0010	0.0022	<0.0010	<0.0010	<0.0010	<0.0010
B, diss, mg/L	0.1290	0.1410	0.1420	0.1480	0.1160	0.1350	0.1250	0.1180
B, tot, mg/L	0.1500	0.1470	0.1580	0.1810	0.1230	0.1590	0.1270	0.1200
Ba, diss, mg/L	0.0275	0.0445	0.0378	0.0342	0.0285	0.0333	0.0270	0.0196
Ba, tot, mg/L	0.0297	0.0511	0.0415	0.0515	0.0331	0.0357	0.0304	0.0251
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	33.0	30.0	30.0	24.0	21.0	35.0	48.0	38.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.22	0.29	0.32	0.27	0.23	0.26	0.27	0.27
Fe, diss, mg/L	<0.0400	0.0769	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	0.1670	1.5600	0.3050	3.0900	0.3870	0.6260	0.4740	0.5090
GW Elv, ft	424.94	430.37	427.21	431.09	429.81	430.02	427.05	424.95
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	0.0433	0.3690	0.0948	0.0416	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.0648	0.6360	0.1530	0.2210	0.0423	0.0393	0.0283	0.0288
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	0.0099	<0.0050	<0.0050	0.0052	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	0.249	0.112	0.386	1.120	3.140	5.000	3.380	1.140
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	<0.0010	0.0013	<0.0010	0.0020	<0.0010	<0.0010	<0.0010	<0.0010
pH (field), STD	7.00	6.71	6.82	7.06	6.97	7.15	6.90	7.10
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-7

	1/26/2021	8/6/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/18/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	28	20	21	22	22	28	28	28
Spec. Cond. (field), micromho	605	641	747	564	723	471	587	743
TDS, mg/L	330	308	310	330	310	334	356	348
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-8

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	0.0015	0.0013	0.0011	0.0011	0.0012	0.0012	0.0013	0.0016
As, tot, mg/L	0.0017	0.0016	0.0013	0.0024	0.0016	0.0014	0.0022	0.0016
B, diss, mg/L	7.0900	6.2600	6.0600	6.9100	7.0200	6.0500	6.9600	6.2800
B, tot, mg/L	7.3700	6.9900	6.3100	7.7000	7.3800	6.2000	7.9100	6.6500
Ba, diss, mg/L	0.0644	0.0676	0.0526	0.0749	0.0538	0.0706	0.0676	0.0479
Ba, tot, mg/L	0.0671	0.0742	0.0558	0.0917	0.0583	0.0748	0.0781	0.0552
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	10.0	8.0	9.0	13.0	12.0	11.0	11.0	11.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	0.0087	0.0080	0.0071	0.0147	0.0256	0.0072	0.0108	0.0320
Cr, tot, mg/L	0.0088	0.0079	0.0074	0.0185	0.0278	0.0078	0.0138	0.0381
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	<0.10	<0.10	0.10	<0.10	0.13	0.10	0.12	<0.10
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	0.0746	0.0992	0.0725	1.7900	0.1300	0.1240	0.9260	0.0751
GW Elv, ft	424.65	429.31	427.32	430.58	429.06	430.76	427.39	431.11
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.0102	0.0132	0.0166	0.1490	0.0156	0.0158	0.1010	0.0159
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0072	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	5.770	4.450	3.980	5.270	4.730	4.280	3.900	3.330
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	<0.0010	<0.0010	<0.0010	0.0021	<0.0010	<0.0010	0.0013	<0.0010
pH (field), STD	7.30	6.99	7.36	7.09	7.34	7.29	7.41	7.44
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	0.0885	0.0774	0.0573	0.0834	0.0583	0.0698	0.0614	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-8

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Se, tot, mg/L	0.0867	0.0850	0.0722	0.0943	0.0627	0.0720	0.0819	0.0451
SO4, diss, mg/L	258	229	230	327	276	249	306	201
Spec. Cond. (field), micromho	881	946	999	944	1240	747	881	1050
TDS, mg/L	634	578	508	696	658	600	652	572
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-9

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	0.0013	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0012
As, tot, mg/L	0.0014	0.0039	0.0015	0.0040	0.0013	0.0014	0.0015	0.0012
B, diss, mg/L	0.8790	1.0400	1.1500	0.9610	0.9150	1.4100	1.1000	0.6460
B, tot, mg/L	0.9210	1.1300	1.2700	1.0500	1.0400	1.4500	1.2800	0.7030
Ba, diss, mg/L	0.0204	0.0264	0.0233	0.0195	0.0177	0.0281	0.0212	0.0117
Ba, tot, mg/L	0.0224	0.0489	0.0275	0.0441	0.0199	0.0335	0.0239	0.0147
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	3.0	22.0	3.0	5.0	2.0	3.0	2.0	<4.0
Co, diss, mg/L	<0.0050	<0.0050	0.0071	0.0072	<0.0050	<0.0050	0.0070	<0.0050
Co, tot, mg/L	<0.0050	0.0055	0.0074	0.0119	<0.0050	<0.0050	0.0074	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	0.0055	<0.0050	0.0059	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	0.28	0.27	0.32	0.32	0.36	0.26	0.35	0.52
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	0.1820	3.1700	0.2190	3.8600	0.1270	0.9960	0.1220	0.1510
GW Elv, ft	423.07	429.50	424.35	430.85	429.88	428.72	424.90	424.90
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.0175	0.4310	0.0219	0.3670	0.0136	0.0413	0.0157	0.0164
Ni, diss, mg/L	<0.0050	<0.0050	0.0052	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	<0.0050	0.0094	0.0068	0.0141	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	2.580	3.700	4.110	3.190	2.740	3.860	2.690	1.910
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	<0.0010	0.0039	<0.0010	0.0043	<0.0010	<0.0010	<0.0010	<0.0010
pH (field), STD	6.90	6.65	6.80	6.87	6.84	7.08	6.97	7.19
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-9

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	449	431	521	421	350	489	471	300
Spec. Cond. (field), micromho	1100	1460	1700	1100	1370	1040	1210	1070
TDS, mg/L	928	988	1010	852	782	1040	986	634
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	0.0110	<0.0100	0.0135	<0.0100	<0.0100	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-10

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	0.0018	0.0018	0.0014	0.0015	0.0012	0.0016	0.0016	0.0019
As, tot, mg/L	0.0031	0.0024	0.0022	0.0364	0.0022	0.0025	0.0059	0.0022
B, diss, mg/L	2.0500	1.7000	1.9200	2.0800	2.1200	2.3000	2.1100	2.5100
B, tot, mg/L	2.1300	1.7900	2.0600	2.3800	2.2900	2.3900	2.3700	2.9500
Ba, diss, mg/L	0.0218	0.0189	0.0196	0.0190	0.0222	0.0219	0.0231	0.0188
Ba, tot, mg/L	0.0264	0.0202	0.0243	0.1430	0.0265	0.0277	0.0345	0.0226
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	0.0013	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	5.0	5.0	7.0	7.0	6.0	5.0	4.0	<4.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050	<0.0050	0.1110	<0.0050	<0.0050	0.0082	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0431	<0.0050	<0.0050	0.0060	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0913	<0.0050	<0.0050	0.0084	<0.0050
F, diss, mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	1.4100	0.3410	0.7480	44.5000	0.9240	1.2200	3.9700	0.1930
GW Elv, ft	425.34	429.75	428.38	431.06	430.40	431.48	427.96	425.50
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	0.0073	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.1350	0.0419	0.0718	3.4300	0.0701	0.1420	0.2880	0.0146
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	0.0065	<0.0050	<0.0050	0.1600	<0.0050	0.0057	0.0122	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	2.400	2.400	2.480	2.480	2.390	3.070	3.190	2.400
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	0.0021	<0.0010	0.0013	0.0469	0.0012	0.0019	0.0056	<0.0010
pH (field), STD	7.50	7.11	7.41	7.54	7.39	7.54	7.47	7.39
Sb, diss, mg/L	<0.0010	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	0.0018	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-10

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	91	82	95	97	126	117	116	117
Spec. Cond. (field), micromho	524	597	741	525	809	515	588	714
TDS, mg/L	330	312	332	350	386	382	408	374
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0622	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	0.1680	<0.0100	<0.0100	0.0137	<0.0100

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Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-11

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
As, tot, mg/L	0.0044	0.0011	0.0016	0.0021	<0.0010	<0.0010	<0.0010	<0.0010
B, diss, mg/L	6.8400	2.0400	1.2900	0.3280	2.0000	2.4800	3.1400	4.1100
B, tot, mg/L	7.0400	2.1500	1.3600	0.3660	2.0700	2.6200	3.1700	4.8900
Ba, diss, mg/L	0.0284	0.0110	0.0100	0.0132	0.0198	0.0140	0.0175	0.0169
Ba, tot, mg/L	0.0384	0.0114	0.0139	0.0195	0.0218	0.0171	0.0194	0.0205
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	11.0	3.0	2.0	4.0	5.0	4.0	2.0	6.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	0.0104	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	0.0051	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	0.0121	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
F, diss, mg/L	<0.10	0.12	0.11	<0.10	<0.10	<0.10	<0.10	<0.10
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	5.1500	0.3140	1.4700	2.0200	0.4520	0.8650	0.2330	0.2370
GW Elv, ft	426.88	431.04	430.81	431.22	430.85	433.03	444.38	426.94
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Mn, tot, mg/L	0.2640	0.0302	0.1040	0.2560	0.0263	0.0964	0.0308	0.0185
Ni, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ni, tot, mg/L	0.0159	<0.0050	0.0057	0.0091	<0.0050	<0.0050	<0.0050	<0.0050
NO2, diss, mg/L	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	3.480	2.660	2.880	2.300	2.760	2.940	0.656	5.020
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	0.0057	<0.0010	0.0019	0.0025	<0.0010	<0.0010	<0.0010	<0.0010
pH (field), STD	7.30	7.03	7.34	7.26	7.40	7.34	7.21	7.43
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	0.0453	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-11

	1/26/2021	6/30/2021	9/17/2021	11/11/2021	3/17/2022	6/22/2022	8/18/2022	12/21/2022
Se, tot, mg/L	0.0479	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	309	50	41	29	139	98	80	202
Spec. Cond. (field), micromho	1100	551	589	360	852	503	596	1080
TDS, mg/L	812	292	256	226	416	354	424	578
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	0.0214	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

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Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-12

	1/26/2021	8/6/2021	9/17/2021	12/13/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Ag, diss, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
As, tot, mg/L	<0.0010	0.0010	0.0023	0.0433	0.0011	0.0037	0.0105	<0.0010
B, diss, mg/L	0.2090	0.1490	0.1320	0.2000	0.0993	0.0791	0.0881	0.1600
B, tot, mg/L	0.2140	0.1480	0.1400	0.2380	0.1220	0.0816	0.1040	0.1690
Ba, diss, mg/L	0.1630	0.1300	0.1190	0.1140	0.1380	0.0975	0.1120	0.1140
Ba, tot, mg/L	0.1770	0.1390	0.1370	0.4390	0.1690	0.1430	0.1830	0.1370
Be, diss, mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005	<0.0005	0.0018	<0.0005	<0.0005	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cl, diss, mg/L	41.0	30.0	29.0	24.0	40.0	48.0	47.0	40.0
Co, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Co, tot, mg/L	0.0076	<0.0050	<0.0050	0.0723	0.0106	0.0118	0.0157	0.0068
Cr, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cr, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0450	<0.0050	<0.0050	0.0079	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050	<0.0050	0.0693	<0.0050	0.0064	0.0148	<0.0050
F, diss, mg/L	0.33	0.36	0.38	0.32	0.29	0.34	0.32	0.34
Fe, diss, mg/L	<0.0400	<0.0400	<0.0400	0.1660	<0.0400	<0.0400	<0.0400	<0.0400
Fe, tot, mg/L	0.4270	0.0989	2.2200	57.6000	0.5740	4.4500	10.9000	0.6220
GW Elv, ft	423.97	429.24	425.45	427.07	429.99	428.61	425.02	424.61
Hg, diss, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mn, diss, mg/L	1.5600	1.0300	1.2900	1.1100	1.0100	1.0200	1.4300	1.3400
Mn, tot, mg/L	3.5600	1.2800	1.6600	12.0000	4.2600	2.2300	2.6300	2.5000
Ni, diss, mg/L	0.0101	0.0073	0.0091	0.0096	0.0065	0.0065	0.0068	0.0081
Ni, tot, mg/L	0.0151	0.0074	0.0138	0.1040	0.0127	0.0152	0.0278	0.0124
NO2, diss, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
NO3, diss, mg/L	<0.050	0.099	0.224	2.000	2.320	0.238	0.368	0.215
Pb, diss, mg/L	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
Pb, tot, mg/L	<0.0010	<0.0010	0.0025	0.0438	<0.0010	0.0038	0.0109	<0.0010
pH (field), STD	6.80	6.67	6.73	6.72	6.72	7.01	7.01	6.91
Sb, diss, mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010	<0.0010	0.0029	<0.0010	<0.0010	<0.0010	<0.0010
Se, diss, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-12

	1/26/2021	8/6/2021	9/17/2021	12/13/2021	3/17/2022	6/21/2022	8/17/2022	12/21/2022
Se, tot, mg/L	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
SO4, diss, mg/L	68	25	31	41	41	26	36	46
Spec. Cond. (field), micromho	831	645	839	927	876	466	678	881
TDS, mg/L	510	324	348	458	372	340	414	420
Tl, diss, mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100	<0.0100	0.0894	<0.0100	<0.0100	0.0186	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100	<0.0100	0.1850	<0.0100	0.0157	0.0343	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-13

	3/17/2022	6/21/2022
Ag, diss, mg/L	<0.007	<0.007
Ag, tot, mg/L	<0.007	<0.007
As, diss, mg/L	<0.0010	<0.0010
As, tot, mg/L	0.0012	<0.0010
B, diss, mg/L	7.1300	5.2700
B, tot, mg/L	7.4600	5.5200
Ba, diss, mg/L	0.0553	0.0405
Ba, tot, mg/L	0.0599	0.0438
Be, diss, mg/L	<0.0005	<0.0005
Be, tot, mg/L	<0.0005	<0.0005
Cd, diss, mg/L	<0.0020	<0.0020
Cl, diss, mg/L	20.0	6.0
Co, diss, mg/L	<0.0050	<0.0050
Co, tot, mg/L	<0.0050	<0.0050
Cr, diss, mg/L	0.0083	<0.0050
Cr, tot, mg/L	0.0143	<0.0050
Cu, diss, mg/L	<0.0050	<0.0050
Cu, tot, mg/L	<0.0050	<0.0050
F, diss, mg/L	<0.10	<0.10
Fe, diss, mg/L	<0.0400	<0.0400
Fe, tot, mg/L	1.0600	0.6030
GW Elv, ft	430.15	431.35
Hg, diss, mg/L	<0.0002	<0.0002
Hg, tot, mg/L	<0.0002	<0.0002
Mn, diss, mg/L	<0.0070	<0.0070
Mn, tot, mg/L	0.0683	0.0266
Ni, diss, mg/L	<0.0050	<0.0050
Ni, tot, mg/L	0.0056	<0.0050
NO2, diss, mg/L	<0.05	<0.05
NO3, diss, mg/L	4.620	3.040
Pb, diss, mg/L	<0.0010	<0.0010
Pb, tot, mg/L	0.0011	<0.0010
pH (field), STD	7.03	7.06
Sb, diss, mg/L	<0.0010	<0.0010
Sb, tot, mg/L	<0.0010	<0.0010
Se, diss, mg/L	0.0873	<0.0400

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-13

	3/17/2022	6/21/2022
Se, tot, mg/L	0.0892	<0.0400
SO4, diss, mg/L	205	193
Spec. Cond. (field), micromho	1120	710
TDS, mg/L	572	624
Tl, diss, mg/L	<0.0020	<0.0020
Tl, tot, mg/L	<0.0020	<0.0020
V, diss, mg/L	<0.0100	<0.0100
V, tot, mg/L	<0.0100	<0.0100
Zn, diss, mg/L	<0.0100	<0.0100
Zn, tot, mg/L	<0.0100	<0.0100

Meredosia Power Station
Groundwater Monitoring Results 2021-2022

Date Range: 01/01/2021 to 12/31/2022
Well: APW-14

	6/21/2022
GW Elv, ft	431.57

APPENDIX B
STATISTICAL OUTPUT

APPENDIX B1
OUTLIER TEST

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Antimony, dissolved, mg/L
Location: APW-1

Mean of all data: 0.000371
Standard Deviation of all data: 0.000222
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, dissolved, mg/L
Location: APW-10

Mean of all data: 0.000528
Standard Deviation of all data: 0.000118
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	0.00100	False		1

Antimony, dissolved, mg/L
Location: APW-11

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Antimony, dissolved, mg/L
Location: APW-12

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, dissolved, mg/L
Location: APW-2

Mean of all data: 0.000379
Standard Deviation of all data: 0.000218
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, dissolved, mg/L
Location: APW-3

Mean of all data: 0.000379
Standard Deviation of all data: 0.000218
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Antimony, dissolved, mg/L
Location: APW-4

Mean of all data: 0.000436
Standard Deviation of all data: 0.000323
Largest Observation Concentration of all data: Xn = 0.00170
Test Statistic, high extreme of all data: Tn = 3.91
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00170	False		1

Antimony, dissolved, mg/L
Location: APW-5

Mean of all data: 0.000371
Standard Deviation of all data: 0.000222
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, dissolved, mg/L
Location: APW-6

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Antimony, dissolved, mg/L
Location: APW-7

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, dissolved, mg/L
Location: APW-8

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, dissolved, mg/L
Location: APW-9

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Antimony, total, mg/L
Location: APW-1

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, total, mg/L
Location: APW-10

Mean of all data: 0.000572
Standard Deviation of all data: 0.000306
Largest Observation Concentration of all data: Xn = 0.00180
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.00180	False		1

Antimony, total, mg/L
Location: APW-11

Mean of all data: 0.000617
Standard Deviation of all data: 0.000495
Largest Observation Concentration of all data: Xn = 0.00260
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.00260	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Antimony, total, mg/L
Location: APW-12

Mean of all data: 0.000641
Standard Deviation of all data: 0.000582
Largest Observation Concentration of all data: Xn = 0.00290
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00290	False		1

Antimony, total, mg/L
Location: APW-2

Mean of all data: 0.000664
Standard Deviation of all data: 0.000768
Largest Observation Concentration of all data: Xn = 0.00410
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	0.00410	False		1

Antimony, total, mg/L
Location: APW-3

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Antimony, total, mg/L
Location: APW-4

Mean of all data: 0.000536
Standard Deviation of all data: 0.000171
Largest Observation Concentration of all data: Xn = 0.00130
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00130	False		1

Antimony, total, mg/L
Location: APW-5

Mean of all data: 0.000530
Standard Deviation of all data: 0.000146
Largest Observation Concentration of all data: Xn = 0.00120
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	0.00120	False		1

Antimony, total, mg/L
Location: APW-6

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Antimony, total, mg/L
Location: APW-7

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Antimony, total, mg/L
Location: APW-8

Mean of all data: 0.000752
Standard Deviation of all data: 0.00109
Largest Observation Concentration of all data: Xn = 0.00570
Test Statistic, high extreme of all data: Tn = 4.56
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.00570	False		1

Antimony, total, mg/L
Location: APW-9

Mean of all data: 0.000636
Standard Deviation of all data: 0.000311
Largest Observation Concentration of all data: Xn = 0.00160
Test Statistic, high extreme of all data: Tn = 3.10
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	0.00160	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Arsenic, dissolved, mg/L
Location: APW-1

Mean of all data: 0.000371
Standard Deviation of all data: 0.000222
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Arsenic, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00153
Standard Deviation of all data: 0.000214
Largest Observation Concentration of all data: Xn = 0.00190
Test Statistic, high extreme of all data: Tn = 1.74
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Arsenic, dissolved, mg/L
Location: APW-11

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Arsenic, dissolved, mg/L
Location: APW-12

Mean of all data: 0.000565
Standard Deviation of all data: 0.000267
Largest Observation Concentration of all data: Xn = 0.00160
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00160	False		1

Arsenic, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00205
Standard Deviation of all data: 0.00140
Largest Observation Concentration of all data: Xn = 0.00440
Test Statistic, high extreme of all data: Tn = 1.67
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Arsenic, dissolved, mg/L
Location: APW-3

Mean of all data: 0.207
Standard Deviation of all data: 0.0521
Largest Observation Concentration of all data: Xn = 0.320
Test Statistic, high extreme of all data: Tn = 2.17
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Arsenic, dissolved, mg/L
Location: APW-4

Mean of all data: 0.0266
Standard Deviation of all data: 0.0408
Largest Observation Concentration of all data: Xn = 0.180
Test Statistic, high extreme of all data: Tn = 3.76
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	0.180	False		1

Arsenic, dissolved, mg/L
Location: APW-5

Mean of all data: 0.000439
Standard Deviation of all data: 0.000258
Largest Observation Concentration of all data: Xn = 0.00110
Test Statistic, high extreme of all data: Tn = 2.57
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Arsenic, dissolved, mg/L
Location: APW-6

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Arsenic, dissolved, mg/L
Location: APW-7

Mean of all data: 0.000523
Standard Deviation of all data: 0.000107
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/28/2017	0.00100	False		1

Arsenic, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00128
Standard Deviation of all data: 0.000161
Largest Observation Concentration of all data: Xn = 0.00160
Test Statistic, high extreme of all data: Tn = 1.97
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Arsenic, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00103
Standard Deviation of all data: 0.000304
Largest Observation Concentration of all data: Xn = 0.00140
Test Statistic, high extreme of all data: Tn = 1.23
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Arsenic, total, mg/L
Location: APW-1

Mean of all data: 0.00182
Standard Deviation of all data: 0.00187
Largest Observation Concentration of all data: Xn = 0.00890
Test Statistic, high extreme of all data: Tn = 3.79
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00890	False		1

Arsenic, total, mg/L
Location: APW-10

Mean of all data: 0.00478
Standard Deviation of all data: 0.00796
Largest Observation Concentration of all data: Xn = 0.0364
Test Statistic, high extreme of all data: Tn = 3.97
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0364	False		1

Arsenic, total, mg/L
Location: APW-11

Mean of all data: 0.00377
Standard Deviation of all data: 0.00848
Largest Observation Concentration of all data: Xn = 0.0371
Test Statistic, high extreme of all data: Tn = 3.93
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0371	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Arsenic, total, mg/L
Location: APW-12

Mean of all data: 0.00457
Standard Deviation of all data: 0.0103
Largest Observation Concentration of all data: Xn = 0.0433
Test Statistic, high extreme of all data: Tn = 3.77
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0433	False		1

Arsenic, total, mg/L
Location: APW-2

Mean of all data: 0.00264
Standard Deviation of all data: 0.00142
Largest Observation Concentration of all data: Xn = 0.00670
Test Statistic, high extreme of all data: Tn = 2.86
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00670	False		1

Arsenic, total, mg/L
Location: APW-3

Mean of all data: 0.240
Standard Deviation of all data: 0.0533
Largest Observation Concentration of all data: Xn = 0.358
Test Statistic, high extreme of all data: Tn = 2.22
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Arsenic, total, mg/L
Location: APW-4

Mean of all data: 0.0166
Standard Deviation of all data: 0.0110
Largest Observation Concentration of all data: Xn = 0.0598
Test Statistic, high extreme of all data: Tn = 3.93
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0598	False		1

Arsenic, total, mg/L
Location: APW-5

Mean of all data: 0.000857
Standard Deviation of all data: 0.000854
Largest Observation Concentration of all data: Xn = 0.00390
Test Statistic, high extreme of all data: Tn = 3.56
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00390	False		1

Arsenic, total, mg/L
Location: APW-6

Mean of all data: 0.00101
Standard Deviation of all data: 0.000596
Largest Observation Concentration of all data: Xn = 0.00270
Test Statistic, high extreme of all data: Tn = 2.83
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00270	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Arsenic, total, mg/L
Location: APW-7

Mean of all data: 0.00178
Standard Deviation of all data: 0.00466
Largest Observation Concentration of all data: Xn = 0.0225
Test Statistic, high extreme of all data: Tn = 4.45
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0225	False		1

Arsenic, total, mg/L
Location: APW-8

Mean of all data: 0.00301
Standard Deviation of all data: 0.00593
Largest Observation Concentration of all data: Xn = 0.0301
Test Statistic, high extreme of all data: Tn = 4.57
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0301	False		1

Arsenic, total, mg/L
Location: APW-9

Mean of all data: 0.00206
Standard Deviation of all data: 0.000914
Largest Observation Concentration of all data: Xn = 0.00420
Test Statistic, high extreme of all data: Tn = 2.34
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Barium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.0128
Standard Deviation of all data: 0.00437
Largest Observation Concentration of all data: Xn = 0.0232
Test Statistic, high extreme of all data: Tn = 2.39
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	<0.0	True	-1	

Barium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.0191
Standard Deviation of all data: 0.00234
Largest Observation Concentration of all data: Xn = 0.0231
Test Statistic, high extreme of all data: Tn = 1.70
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Barium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.0158
Standard Deviation of all data: 0.00429
Largest Observation Concentration of all data: Xn = 0.0284
Test Statistic, high extreme of all data: Tn = 2.94
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	0.0284	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Barium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.131
Standard Deviation of all data: 0.0360
Largest Observation Concentration of all data: Xn = 0.246
Test Statistic, high extreme of all data: Tn = 3.19
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	0.246	False		1

Barium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.0506
Standard Deviation of all data: 0.0141
Largest Observation Concentration of all data: Xn = 0.0718
Test Statistic, high extreme of all data: Tn = 1.50
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	<0.0	True	-1	

Barium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.0697
Standard Deviation of all data: 0.0245
Largest Observation Concentration of all data: Xn = 0.114
Test Statistic, high extreme of all data: Tn = 1.81
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	<0.0	True	-1	

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Barium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.0492
Standard Deviation of all data: 0.0187
Largest Observation Concentration of all data: Xn = 0.0950
Test Statistic, high extreme of all data: Tn = 2.45
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Barium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00777
Standard Deviation of all data: 0.00204
Largest Observation Concentration of all data: Xn = 0.0108
Test Statistic, high extreme of all data: Tn = 1.49
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	<0.0	True	-1	

Barium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.0142
Standard Deviation of all data: 0.00288
Largest Observation Concentration of all data: Xn = 0.0198
Test Statistic, high extreme of all data: Tn = 1.95
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Barium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.0308
Standard Deviation of all data: 0.00630
Largest Observation Concentration of all data: Xn = 0.0445
Test Statistic, high extreme of all data: Tn = 2.18
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Barium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.0642
Standard Deviation of all data: 0.00802
Largest Observation Concentration of all data: Xn = 0.0754
Test Statistic, high extreme of all data: Tn = 1.40
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Barium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.0252
Standard Deviation of all data: 0.00924
Largest Observation Concentration of all data: Xn = 0.0490
Test Statistic, high extreme of all data: Tn = 2.57
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Barium, total, mg/L
Location: APW-1

Mean of all data: 0.0226
Standard Deviation of all data: 0.0108
Largest Observation Concentration of all data: Xn = 0.0650
Test Statistic, high extreme of all data: Tn = 3.92
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0650	False		1

Barium, total, mg/L
Location: APW-10

Mean of all data: 0.0312
Standard Deviation of all data: 0.0282
Largest Observation Concentration of all data: Xn = 0.143
Test Statistic, high extreme of all data: Tn = 3.97
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.143	False		1

Barium, total, mg/L
Location: APW-11

Mean of all data: 0.0252
Standard Deviation of all data: 0.0191
Largest Observation Concentration of all data: Xn = 0.0970
Test Statistic, high extreme of all data: Tn = 3.75
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0970	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Barium, total, mg/L
Location: APW-12

Mean of all data: 0.172
Standard Deviation of all data: 0.0793
Largest Observation Concentration of all data: Xn = 0.439
Test Statistic, high extreme of all data: Tn = 3.36
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.439	False		1

Barium, total, mg/L
Location: APW-2

Mean of all data: 0.0724
Standard Deviation of all data: 0.0267
Largest Observation Concentration of all data: Xn = 0.165
Test Statistic, high extreme of all data: Tn = 3.46
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.165	False		1

Barium, total, mg/L
Location: APW-3

Mean of all data: 0.104
Standard Deviation of all data: 0.0240
Largest Observation Concentration of all data: Xn = 0.157
Test Statistic, high extreme of all data: Tn = 2.20
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Barium, total, mg/L
Location: APW-4

Mean of all data: 0.0746
Standard Deviation of all data: 0.0511
Largest Observation Concentration of all data: Xn = 0.286
Test Statistic, high extreme of all data: Tn = 4.14
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.286	False		1

Barium, total, mg/L
Location: APW-5

Mean of all data: 0.0109
Standard Deviation of all data: 0.00487
Largest Observation Concentration of all data: Xn = 0.0304
Test Statistic, high extreme of all data: Tn = 4.00
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0304	False		1

Barium, total, mg/L
Location: APW-6

Mean of all data: 0.0170
Standard Deviation of all data: 0.00399
Largest Observation Concentration of all data: Xn = 0.0270
Test Statistic, high extreme of all data: Tn = 2.51
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Barium, total, mg/L
Location: APW-7

Mean of all data: 0.0417
Standard Deviation of all data: 0.0274
Largest Observation Concentration of all data: Xn = 0.160
Test Statistic, high extreme of all data: Tn = 4.32
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.160	False		1

Barium, total, mg/L
Location: APW-8

Mean of all data: 0.0757
Standard Deviation of all data: 0.0261
Largest Observation Concentration of all data: Xn = 0.185
Test Statistic, high extreme of all data: Tn = 4.18
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.185	False		1

Barium, total, mg/L
Location: APW-9

Mean of all data: 0.0334
Standard Deviation of all data: 0.0122
Largest Observation Concentration of all data: Xn = 0.0606
Test Statistic, high extreme of all data: Tn = 2.22
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Beryllium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.000185
Standard Deviation of all data: 0.000111
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Beryllium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.000190
Standard Deviation of all data: 0.000109
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.000364
Standard Deviation of all data: 0.000764
Largest Observation Concentration of all data: Xn = 0.00420
Test Statistic, high extreme of all data: Tn = 5.02
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00420	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Beryllium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.000314
Standard Deviation of all data: 0.000390
Largest Observation Concentration of all data: Xn = 0.00180
Test Statistic, high extreme of all data: Tn = 3.81
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	0.00180	False		1

Beryllium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.000185
Standard Deviation of all data: 0.000111
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Beryllium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.000313
Standard Deviation of all data: 0.000302
Largest Observation Concentration of all data: Xn = 0.00170
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00170	False		1

Beryllium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Beryllium, total, mg/L
Location: APW-1

Mean of all data: 0.000265
Standard Deviation of all data: 0.0000730
Largest Observation Concentration of all data: Xn = 0.000600
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.000600	False		1

Beryllium, total, mg/L
Location: APW-10

Mean of all data: 0.000308
Standard Deviation of all data: 0.000247
Largest Observation Concentration of all data: Xn = 0.00130
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.00130	False		1

Beryllium, total, mg/L
Location: APW-11

Mean of all data: 0.000314
Standard Deviation of all data: 0.000271
Largest Observation Concentration of all data: Xn = 0.00140
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.00140	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Beryllium, total, mg/L
Location: APW-12

Mean of all data: 0.000341
Standard Deviation of all data: 0.000376
Largest Observation Concentration of all data: Xn = 0.00180
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00180	False		1

Beryllium, total, mg/L
Location: APW-2

Mean of all data: 0.000266
Standard Deviation of all data: 0.0000746
Largest Observation Concentration of all data: Xn = 0.000600
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.000600	False		1

Beryllium, total, mg/L
Location: APW-3

Mean of all data: 0.000461
Standard Deviation of all data: 0.000991
Largest Observation Concentration of all data: Xn = 0.00490
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00490	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Beryllium, total, mg/L
Location: APW-4

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, total, mg/L
Location: APW-5

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Beryllium, total, mg/L
Location: APW-6

Mean of all data: 0.000265
Standard Deviation of all data: 0.0000730
Largest Observation Concentration of all data: Xn = 0.000600
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.000600	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Beryllium, total, mg/L
Location: APW-7

Mean of all data: 0.000280
Standard Deviation of all data: 0.000139
Largest Observation Concentration of all data: Xn = 0.000900
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.000900	False		1

Beryllium, total, mg/L
Location: APW-8

Mean of all data: 0.000350
Standard Deviation of all data: 0.000364
Largest Observation Concentration of all data: Xn = 0.00190
Test Statistic, high extreme of all data: Tn = 4.26
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00190	False		1

Beryllium, total, mg/L
Location: APW-9

Mean of all data: 0.000250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Boron, dissolved, mg/L
Location: APW-1

Mean of all data: 0.0773
Standard Deviation of all data: 0.0250
Largest Observation Concentration of all data: Xn = 0.140
Test Statistic, high extreme of all data: Tn = 2.50
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, dissolved, mg/L
Location: APW-10

Mean of all data: 1.49
Standard Deviation of all data: 0.615
Largest Observation Concentration of all data: Xn = 2.51
Test Statistic, high extreme of all data: Tn = 1.66
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, dissolved, mg/L
Location: APW-11

Mean of all data: 2.43
Standard Deviation of all data: 1.52
Largest Observation Concentration of all data: Xn = 6.84
Test Statistic, high extreme of all data: Tn = 2.91
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	6.84	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Boron, dissolved, mg/L
Location: APW-12

Mean of all data: 0.144
Standard Deviation of all data: 0.0583
Largest Observation Concentration of all data: Xn = 0.241
Test Statistic, high extreme of all data: Tn = 1.66
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, dissolved, mg/L
Location: APW-2

Mean of all data: 2.18
Standard Deviation of all data: 0.823
Largest Observation Concentration of all data: Xn = 3.90
Test Statistic, high extreme of all data: Tn = 2.09
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, dissolved, mg/L
Location: APW-3

Mean of all data: 20.7
Standard Deviation of all data: 8.33
Largest Observation Concentration of all data: Xn = 46.0
Test Statistic, high extreme of all data: Tn = 3.04
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	46.0	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Boron, dissolved, mg/L
Location: APW-4

Mean of all data: 1.83
Standard Deviation of all data: 1.55
Largest Observation Concentration of all data: Xn = 6.30
Test Statistic, high extreme of all data: Tn = 2.88
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	6.30	False		1

Boron, dissolved, mg/L
Location: APW-5

Mean of all data: 0.135
Standard Deviation of all data: 0.0957
Largest Observation Concentration of all data: Xn = 0.410
Test Statistic, high extreme of all data: Tn = 2.87
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	0.410	False		1

Boron, dissolved, mg/L
Location: APW-6

Mean of all data: 0.681
Standard Deviation of all data: 0.499
Largest Observation Concentration of all data: Xn = 1.81
Test Statistic, high extreme of all data: Tn = 2.26
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Boron, dissolved, mg/L
Location: APW-7

Mean of all data: 0.154
Standard Deviation of all data: 0.0654
Largest Observation Concentration of all data: Xn = 0.378
Test Statistic, high extreme of all data: Tn = 3.43
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/27/2018	0.378	False		1

Boron, dissolved, mg/L
Location: APW-8

Mean of all data: 7.18
Standard Deviation of all data: 0.824
Largest Observation Concentration of all data: Xn = 8.88
Test Statistic, high extreme of all data: Tn = 2.06
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, dissolved, mg/L
Location: APW-9

Mean of all data: 1.07
Standard Deviation of all data: 0.456
Largest Observation Concentration of all data: Xn = 2.11
Test Statistic, high extreme of all data: Tn = 2.28
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Boron, total, mg/L
Location: APW-1

Mean of all data: 0.0733
Standard Deviation of all data: 0.0163
Largest Observation Concentration of all data: Xn = 0.110
Test Statistic, high extreme of all data: Tn = 2.25
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, total, mg/L
Location: APW-10

Mean of all data: 1.62
Standard Deviation of all data: 0.702
Largest Observation Concentration of all data: Xn = 2.95
Test Statistic, high extreme of all data: Tn = 1.90
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, total, mg/L
Location: APW-11

Mean of all data: 2.64
Standard Deviation of all data: 1.67
Largest Observation Concentration of all data: Xn = 7.04
Test Statistic, high extreme of all data: Tn = 2.63
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	7.04	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Boron, total, mg/L
Location: APW-12

Mean of all data: 0.153
Standard Deviation of all data: 0.0631
Largest Observation Concentration of all data: Xn = 0.273
Test Statistic, high extreme of all data: Tn = 1.90
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, total, mg/L
Location: APW-2

Mean of all data: 1.95
Standard Deviation of all data: 0.617
Largest Observation Concentration of all data: Xn = 2.94
Test Statistic, high extreme of all data: Tn = 1.60
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, total, mg/L
Location: APW-3

Mean of all data: 18.3
Standard Deviation of all data: 4.84
Largest Observation Concentration of all data: Xn = 28.7
Test Statistic, high extreme of all data: Tn = 2.15
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Boron, total, mg/L
Location: APW-4

Mean of all data: 1.20
Standard Deviation of all data: 0.451
Largest Observation Concentration of all data: Xn = 2.14
Test Statistic, high extreme of all data: Tn = 2.09
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, total, mg/L
Location: APW-5

Mean of all data: 0.0994
Standard Deviation of all data: 0.0169
Largest Observation Concentration of all data: Xn = 0.154
Test Statistic, high extreme of all data: Tn = 3.22
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/20/2018	0.154	False		1

Boron, total, mg/L
Location: APW-6

Mean of all data: 0.726
Standard Deviation of all data: 0.522
Largest Observation Concentration of all data: Xn = 1.91
Test Statistic, high extreme of all data: Tn = 2.27
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Boron, total, mg/L
Location: APW-7

Mean of all data: 0.162
Standard Deviation of all data: 0.0657
Largest Observation Concentration of all data: Xn = 0.363
Test Statistic, high extreme of all data: Tn = 3.06
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/27/2018	0.363	False		1

Boron, total, mg/L
Location: APW-8

Mean of all data: 7.62
Standard Deviation of all data: 0.876
Largest Observation Concentration of all data: Xn = 9.40
Test Statistic, high extreme of all data: Tn = 2.04
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Boron, total, mg/L
Location: APW-9

Mean of all data: 1.18
Standard Deviation of all data: 0.514
Largest Observation Concentration of all data: Xn = 2.30
Test Statistic, high extreme of all data: Tn = 2.18
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.000742
Standard Deviation of all data: 0.000445
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.000759
Standard Deviation of all data: 0.000435
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.000945
Standard Deviation of all data: 0.000371
Largest Observation Concentration of all data: Xn = 0.00190
Test Statistic, high extreme of all data: Tn = 2.58
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.000786
Standard Deviation of all data: 0.000418
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.513
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.000742
Standard Deviation of all data: 0.000445
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, total, mg/L
Location: APW-1

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-10

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-11

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Cadmium, total, mg/L
Location: APW-12

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-2

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-3

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, total, mg/L
Location: APW-4

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-5

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-6

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cadmium, total, mg/L
Location: APW-7

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-8

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cadmium, total, mg/L
Location: APW-9

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Chloride, dissolved, mg/L
Location: APW-1

Mean of all data: 39.2
Standard Deviation of all data: 35.6
Largest Observation Concentration of all data: Xn = 159.
Test Statistic, high extreme of all data: Tn = 3.37
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/22/2022	159.	False		1

Chloride, dissolved, mg/L
Location: APW-10

Mean of all data: 3.64
Standard Deviation of all data: 1.73
Largest Observation Concentration of all data: Xn = 7.00
Test Statistic, high extreme of all data: Tn = 1.94
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chloride, dissolved, mg/L
Location: APW-11

Mean of all data: 3.83
Standard Deviation of all data: 2.31
Largest Observation Concentration of all data: Xn = 11.0
Test Statistic, high extreme of all data: Tn = 3.11
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	11.0	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Chloride, dissolved, mg/L
Location: APW-12

Mean of all data: 44.4
Standard Deviation of all data: 13.5
Largest Observation Concentration of all data: Xn = 75.0
Test Statistic, high extreme of all data: Tn = 2.27
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chloride, dissolved, mg/L
Location: APW-2

Mean of all data: 23.7
Standard Deviation of all data: 14.5
Largest Observation Concentration of all data: Xn = 50.0
Test Statistic, high extreme of all data: Tn = 1.81
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chloride, dissolved, mg/L
Location: APW-3

Mean of all data: 30.1
Standard Deviation of all data: 13.1
Largest Observation Concentration of all data: Xn = 58.0
Test Statistic, high extreme of all data: Tn = 2.13
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Chloride, dissolved, mg/L
Location: APW-4

Mean of all data: 36.9
Standard Deviation of all data: 11.1
Largest Observation Concentration of all data: Xn = 63.0
Test Statistic, high extreme of all data: Tn = 2.35
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chloride, dissolved, mg/L
Location: APW-5

Mean of all data: 5.74
Standard Deviation of all data: 4.94
Largest Observation Concentration of all data: Xn = 22.0
Test Statistic, high extreme of all data: Tn = 3.29
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/04/2019	22.0	False		1

Chloride, dissolved, mg/L
Location: APW-6

Mean of all data: 6.89
Standard Deviation of all data: 6.70
Largest Observation Concentration of all data: Xn = 27.0
Test Statistic, high extreme of all data: Tn = 3.00
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	27.0	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Chloride, dissolved, mg/L
Location: APW-7

Mean of all data: 37.5
Standard Deviation of all data: 11.0
Largest Observation Concentration of all data: Xn = 67.0
Test Statistic, high extreme of all data: Tn = 2.68
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	67.0	False		1

Chloride, dissolved, mg/L
Location: APW-8

Mean of all data: 10.1
Standard Deviation of all data: 3.77
Largest Observation Concentration of all data: Xn = 18.0
Test Statistic, high extreme of all data: Tn = 2.10
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chloride, dissolved, mg/L
Location: APW-9

Mean of all data: 16.8
Standard Deviation of all data: 13.0
Largest Observation Concentration of all data: Xn = 43.0
Test Statistic, high extreme of all data: Tn = 2.02
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

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Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Chromium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00185
Standard Deviation of all data: 0.00111
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Chromium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00250
Standard Deviation of all data: 0.0000000000412
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00190
Standard Deviation of all data: 0.00109
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00190
Standard Deviation of all data: 0.00109
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Chromium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00221
Standard Deviation of all data: 0.00134
Largest Observation Concentration of all data: Xn = 0.00690
Test Statistic, high extreme of all data: Tn = 3.51
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/15/2011	0.00690	False		1

Chromium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00185
Standard Deviation of all data: 0.00111
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Chromium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.0113
Standard Deviation of all data: 0.00605
Largest Observation Concentration of all data: Xn = 0.0320
Test Statistic, high extreme of all data: Tn = 3.42
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/21/2022	0.0320	False		1

Chromium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Chromium, total, mg/L
Location: APW-1

Mean of all data: 0.00306
Standard Deviation of all data: 0.00196
Largest Observation Concentration of all data: Xn = 0.0111
Test Statistic, high extreme of all data: Tn = 4.10
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0111	False		1

Chromium, total, mg/L
Location: APW-10

Mean of all data: 0.00537
Standard Deviation of all data: 0.00953
Largest Observation Concentration of all data: Xn = 0.0431
Test Statistic, high extreme of all data: Tn = 3.96
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0431	False		1

Chromium, total, mg/L
Location: APW-11

Mean of all data: 0.00551
Standard Deviation of all data: 0.0103
Largest Observation Concentration of all data: Xn = 0.0465
Test Statistic, high extreme of all data: Tn = 3.97
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0465	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Chromium, total, mg/L
Location: APW-12

Mean of all data: 0.00532
Standard Deviation of all data: 0.0103
Largest Observation Concentration of all data: Xn = 0.0450
Test Statistic, high extreme of all data: Tn = 3.85
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0450	False		1

Chromium, total, mg/L
Location: APW-2

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Chromium, total, mg/L
Location: APW-3

Mean of all data: 0.00299
Standard Deviation of all data: 0.00160
Largest Observation Concentration of all data: Xn = 0.00870
Test Statistic, high extreme of all data: Tn = 3.58
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.00870	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Chromium, total, mg/L
Location: APW-4

Mean of all data: 0.00345
Standard Deviation of all data: 0.00230
Largest Observation Concentration of all data: Xn = 0.0105
Test Statistic, high extreme of all data: Tn = 3.06
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/21/2017	0.0105	False		1

Chromium, total, mg/L
Location: APW-5

Mean of all data: 0.00266
Standard Deviation of all data: 0.000751
Largest Observation Concentration of all data: Xn = 0.00610
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00610	False		1

Chromium, total, mg/L
Location: APW-6

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

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Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Chromium, total, mg/L
Location: APW-7

Mean of all data: 0.00348
Standard Deviation of all data: 0.00461
Largest Observation Concentration of all data: Xn = 0.0241
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0241	False		1

Chromium, total, mg/L
Location: APW-8

Mean of all data: 0.0142
Standard Deviation of all data: 0.00966
Largest Observation Concentration of all data: Xn = 0.0438
Test Statistic, high extreme of all data: Tn = 3.07
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0438	False		1

Chromium, total, mg/L
Location: APW-9

Mean of all data: 0.00263
Standard Deviation of all data: 0.000597
Largest Observation Concentration of all data: Xn = 0.00530
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00530	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cobalt, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00185
Standard Deviation of all data: 0.00111
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cobalt, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00250
Standard Deviation of all data: 0.0000000000412
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00253
Standard Deviation of all data: 0.000568
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 1.71
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	<0.0	True	-1	

Cobalt, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00190
Standard Deviation of all data: 0.00109
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cobalt, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00196
Standard Deviation of all data: 0.00104
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.513
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00185
Standard Deviation of all data: 0.00111
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cobalt, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00355
Standard Deviation of all data: 0.00180
Largest Observation Concentration of all data: Xn = 0.00720
Test Statistic, high extreme of all data: Tn = 2.03
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Cobalt, total, mg/L
Location: APW-1

Mean of all data: 0.00549
Standard Deviation of all data: 0.00737
Largest Observation Concentration of all data: Xn = 0.0352
Test Statistic, high extreme of all data: Tn = 4.03
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0352	False		1

Cobalt, total, mg/L
Location: APW-10

Mean of all data: 0.00969
Standard Deviation of all data: 0.0254
Largest Observation Concentration of all data: Xn = 0.111
Test Statistic, high extreme of all data: Tn = 3.99
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.111	False		1

Cobalt, total, mg/L
Location: APW-11

Mean of all data: 0.00857
Standard Deviation of all data: 0.0196
Largest Observation Concentration of all data: Xn = 0.0860
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0860	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Cobalt, total, mg/L
Location: APW-12

Mean of all data: 0.00913
Standard Deviation of all data: 0.0168
Largest Observation Concentration of all data: Xn = 0.0723
Test Statistic, high extreme of all data: Tn = 3.77
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0723	False		1

Cobalt, total, mg/L
Location: APW-2

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, total, mg/L
Location: APW-3

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cobalt, total, mg/L
Location: APW-4

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cobalt, total, mg/L
Location: APW-5

Mean of all data: 0.00426
Standard Deviation of all data: 0.00527
Largest Observation Concentration of all data: Xn = 0.0265
Test Statistic, high extreme of all data: Tn = 4.22
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0265	False		1

Cobalt, total, mg/L
Location: APW-6

Mean of all data: 0.00273
Standard Deviation of all data: 0.00108
Largest Observation Concentration of all data: Xn = 0.00770
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00770	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cobalt, total, mg/L
Location: APW-7

Mean of all data: 0.00333
Standard Deviation of all data: 0.00388
Largest Observation Concentration of all data: Xn = 0.0207
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0207	False		1

Cobalt, total, mg/L
Location: APW-8

Mean of all data: 0.00612
Standard Deviation of all data: 0.0155
Largest Observation Concentration of all data: Xn = 0.0771
Test Statistic, high extreme of all data: Tn = 4.57
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0771	False		1

Cobalt, total, mg/L
Location: APW-9

Mean of all data: 0.00510
Standard Deviation of all data: 0.00318
Largest Observation Concentration of all data: Xn = 0.0119
Test Statistic, high extreme of all data: Tn = 2.14
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Copper, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00199
Standard Deviation of all data: 0.00142
Largest Observation Concentration of all data: Xn = 0.00680
Test Statistic, high extreme of all data: Tn = 3.38
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	0.00680	False		1

Copper, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Copper, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00250
Standard Deviation of all data: 0.0000000000412
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00190
Standard Deviation of all data: 0.00109
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00190
Standard Deviation of all data: 0.00109
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Copper, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00196
Standard Deviation of all data: 0.00104
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.513
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00185
Standard Deviation of all data: 0.00111
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Copper, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Copper, total, mg/L
Location: APW-1

Mean of all data: 0.00392
Standard Deviation of all data: 0.00453
Largest Observation Concentration of all data: Xn = 0.0226
Test Statistic, high extreme of all data: Tn = 4.12
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0226	False		1

Copper, total, mg/L
Location: APW-10

Mean of all data: 0.00813
Standard Deviation of all data: 0.0209
Largest Observation Concentration of all data: Xn = 0.0913
Test Statistic, high extreme of all data: Tn = 3.99
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0913	False		1

Copper, total, mg/L
Location: APW-11

Mean of all data: 0.0103
Standard Deviation of all data: 0.0245
Largest Observation Concentration of all data: Xn = 0.107
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.107	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Copper, total, mg/L
Location: APW-12

Mean of all data: 0.00738
Standard Deviation of all data: 0.0162
Largest Observation Concentration of all data: Xn = 0.0693
Test Statistic, high extreme of all data: Tn = 3.81
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0693	False		1

Copper, total, mg/L
Location: APW-2

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Copper, total, mg/L
Location: APW-3

Mean of all data: 0.00272
Standard Deviation of all data: 0.00104
Largest Observation Concentration of all data: Xn = 0.00740
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.00740	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Copper, total, mg/L
Location: APW-4

Mean of all data: 0.00482
Standard Deviation of all data: 0.00420
Largest Observation Concentration of all data: Xn = 0.0159
Test Statistic, high extreme of all data: Tn = 2.64
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0159	False		1

Copper, total, mg/L
Location: APW-5

Mean of all data: 0.00312
Standard Deviation of all data: 0.00229
Largest Observation Concentration of all data: Xn = 0.0130
Test Statistic, high extreme of all data: Tn = 4.32
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0130	False		1

Copper, total, mg/L
Location: APW-6

Mean of all data: 0.00277
Standard Deviation of all data: 0.00127
Largest Observation Concentration of all data: Xn = 0.00860
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00860	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Copper, total, mg/L
Location: APW-7

Mean of all data: 0.00358
Standard Deviation of all data: 0.00507
Largest Observation Concentration of all data: Xn = 0.0263
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0263	False		1

Copper, total, mg/L
Location: APW-8

Mean of all data: 0.00618
Standard Deviation of all data: 0.0164
Largest Observation Concentration of all data: Xn = 0.0815
Test Statistic, high extreme of all data: Tn = 4.58
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0815	False		1

Copper, total, mg/L
Location: APW-9

Mean of all data: 0.00310
Standard Deviation of all data: 0.00167
Largest Observation Concentration of all data: Xn = 0.00930
Test Statistic, high extreme of all data: Tn = 3.70
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00930	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cyanide, total, mg/L
Location: APW-1

Mean of all data: 0.00198
Standard Deviation of all data: 0.00123
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 1.23
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-10

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-11

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cyanide, total, mg/L
Location: APW-12

Mean of all data: 0.00250
Standard Deviation of all data: 0.0000000000412
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-2

Mean of all data: 0.00203
Standard Deviation of all data: 0.00122
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 1.20
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-3

Mean of all data: 0.00205
Standard Deviation of all data: 0.00124
Largest Observation Concentration of all data: Xn = 0.00400
Test Statistic, high extreme of all data: Tn = 1.57
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Cyanide, total, mg/L
Location: APW-4

Mean of all data: 0.00211
Standard Deviation of all data: 0.00117
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 1.19
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-5

Mean of all data: 0.00198
Standard Deviation of all data: 0.00123
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 1.23
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-6

Mean of all data: 0.00267
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 2.13
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Cyanide, total, mg/L
Location: APW-7

Mean of all data: 0.00270
Standard Deviation of all data: 0.000454
Largest Observation Concentration of all data: Xn = 0.00400
Test Statistic, high extreme of all data: Tn = 2.85
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	<0.00400	True		1

Cyanide, total, mg/L
Location: APW-8

Mean of all data: 0.00267
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 2.13
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Cyanide, total, mg/L
Location: APW-9

Mean of all data: 0.00268
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 2.07
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Fluoride, dissolved, mg/L
Location: APW-1

Mean of all data: 0.156
Standard Deviation of all data: 0.102
Largest Observation Concentration of all data: Xn = 0.350
Test Statistic, high extreme of all data: Tn = 1.89
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Fluoride, dissolved, mg/L
Location: APW-10

Mean of all data: 0.0500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Fluoride, dissolved, mg/L
Location: APW-11

Mean of all data: 0.0617
Standard Deviation of all data: 0.0271
Largest Observation Concentration of all data: Xn = 0.130
Test Statistic, high extreme of all data: Tn = 2.53
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/04/2019	0.130	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Fluoride, dissolved, mg/L
Location: APW-12

Mean of all data: 0.337
Standard Deviation of all data: 0.0410
Largest Observation Concentration of all data: Xn = 0.420
Test Statistic, high extreme of all data: Tn = 2.02
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Fluoride, dissolved, mg/L
Location: APW-2

Mean of all data: 0.284
Standard Deviation of all data: 0.0790
Largest Observation Concentration of all data: Xn = 0.460
Test Statistic, high extreme of all data: Tn = 2.23
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/24/2011	<0.0	True	-1	

Fluoride, dissolved, mg/L
Location: APW-3

Mean of all data: 0.250
Standard Deviation of all data: 0.0871
Largest Observation Concentration of all data: Xn = 0.540
Test Statistic, high extreme of all data: Tn = 3.33
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	0.540	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Fluoride, dissolved, mg/L
Location: APW-4

Mean of all data: 0.440
Standard Deviation of all data: 0.102
Largest Observation Concentration of all data: Xn = 0.790
Test Statistic, high extreme of all data: Tn = 3.42
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	0.790	False		1

Fluoride, dissolved, mg/L
Location: APW-5

Mean of all data: 0.110
Standard Deviation of all data: 0.0878
Largest Observation Concentration of all data: Xn = 0.360
Test Statistic, high extreme of all data: Tn = 2.85
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	0.360	False		1

Fluoride, dissolved, mg/L
Location: APW-6

Mean of all data: 0.153
Standard Deviation of all data: 0.0362
Largest Observation Concentration of all data: Xn = 0.250
Test Statistic, high extreme of all data: Tn = 2.69
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
07/29/2020	0.250	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Fluoride, dissolved, mg/L
Location: APW-7

Mean of all data: 0.270
Standard Deviation of all data: 0.0502
Largest Observation Concentration of all data: Xn = 0.400
Test Statistic, high extreme of all data: Tn = 2.58
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Fluoride, dissolved, mg/L
Location: APW-8

Mean of all data: 0.107
Standard Deviation of all data: 0.0527
Largest Observation Concentration of all data: Xn = 0.240
Test Statistic, high extreme of all data: Tn = 2.52
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Fluoride, dissolved, mg/L
Location: APW-9

Mean of all data: 0.317
Standard Deviation of all data: 0.0917
Largest Observation Concentration of all data: Xn = 0.570
Test Statistic, high extreme of all data: Tn = 2.76
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.570	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Iron, dissolved, mg/L
Location: APW-1

Mean of all data: 0.0197
Standard Deviation of all data: 0.0277
Largest Observation Concentration of all data: Xn = 0.162
Test Statistic, high extreme of all data: Tn = 5.13
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	0.162	False		1

Iron, dissolved, mg/L
Location: APW-10

Mean of all data: 0.0486
Standard Deviation of all data: 0.121
Largest Observation Concentration of all data: Xn = 0.535
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	0.535	False		1

Iron, dissolved, mg/L
Location: APW-11

Mean of all data: 0.0269
Standard Deviation of all data: 0.0292
Largest Observation Concentration of all data: Xn = 0.144
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/04/2019	0.144	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Iron, dissolved, mg/L
Location: APW-12

Mean of all data: 0.0286
Standard Deviation of all data: 0.0354
Largest Observation Concentration of all data: Xn = 0.166
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.166	False		1

Iron, dissolved, mg/L
Location: APW-2

Mean of all data: 0.225
Standard Deviation of all data: 0.264
Largest Observation Concentration of all data: Xn = 1.10
Test Statistic, high extreme of all data: Tn = 3.32
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/24/2011	1.10	False		1

Iron, dissolved, mg/L
Location: APW-3

Mean of all data: 1.77
Standard Deviation of all data: 1.39
Largest Observation Concentration of all data: Xn = 5.40
Test Statistic, high extreme of all data: Tn = 2.62
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Iron, dissolved, mg/L
Location: APW-4

Mean of all data: 7.87
Standard Deviation of all data: 3.98
Largest Observation Concentration of all data: Xn = 16.0
Test Statistic, high extreme of all data: Tn = 2.04
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Iron, dissolved, mg/L
Location: APW-5

Mean of all data: 0.0139
Standard Deviation of all data: 0.00841
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.721
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Iron, dissolved, mg/L
Location: APW-6

Mean of all data: 0.0183
Standard Deviation of all data: 0.00388
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Iron, dissolved, mg/L
Location: APW-7

Mean of all data: 0.0302
Standard Deviation of all data: 0.0248
Largest Observation Concentration of all data: Xn = 0.113
Test Statistic, high extreme of all data: Tn = 3.34
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
07/29/2020	0.113	False		1

Iron, dissolved, mg/L
Location: APW-8

Mean of all data: 0.0183
Standard Deviation of all data: 0.00388
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Iron, dissolved, mg/L
Location: APW-9

Mean of all data: 0.0198
Standard Deviation of all data: 0.00908
Largest Observation Concentration of all data: Xn = 0.0565
Test Statistic, high extreme of all data: Tn = 4.04
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
08/26/2019	0.0565	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Iron, total, mg/L
Location: APW-1

Mean of all data: 2.79
Standard Deviation of all data: 3.61
Largest Observation Concentration of all data: Xn = 17.4
Test Statistic, high extreme of all data: Tn = 4.05
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	17.4	False		1

Iron, total, mg/L
Location: APW-10

Mean of all data: 3.89
Standard Deviation of all data: 10.2
Largest Observation Concentration of all data: Xn = 44.5
Test Statistic, high extreme of all data: Tn = 3.98
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	44.5	False		1

Iron, total, mg/L
Location: APW-11

Mean of all data: 4.79
Standard Deviation of all data: 13.2
Largest Observation Concentration of all data: Xn = 56.8
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	56.8	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Iron, total, mg/L
Location: APW-12

Mean of all data: 5.19
Standard Deviation of all data: 13.8
Largest Observation Concentration of all data: Xn = 57.6
Test Statistic, high extreme of all data: Tn = 3.81
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	57.6	False		1

Iron, total, mg/L
Location: APW-2

Mean of all data: 2.92
Standard Deviation of all data: 3.84
Largest Observation Concentration of all data: Xn = 17.8
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	17.8	False		1

Iron, total, mg/L
Location: APW-3

Mean of all data: 4.97
Standard Deviation of all data: 2.59
Largest Observation Concentration of all data: Xn = 11.5
Test Statistic, high extreme of all data: Tn = 2.52
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Iron, total, mg/L
Location: APW-4

Mean of all data: 14.4
Standard Deviation of all data: 13.2
Largest Observation Concentration of all data: Xn = 70.3
Test Statistic, high extreme of all data: Tn = 4.25
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	70.3	False		1

Iron, total, mg/L
Location: APW-5

Mean of all data: 0.777
Standard Deviation of all data: 1.27
Largest Observation Concentration of all data: Xn = 5.80
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	5.80	False		1

Iron, total, mg/L
Location: APW-6

Mean of all data: 0.755
Standard Deviation of all data: 0.826
Largest Observation Concentration of all data: Xn = 3.82
Test Statistic, high extreme of all data: Tn = 3.71
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	3.82	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Iron, total, mg/L
Location: APW-7

Mean of all data: 2.29
Standard Deviation of all data: 7.35
Largest Observation Concentration of all data: Xn = 35.0
Test Statistic, high extreme of all data: Tn = 4.45
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	35.0	False		1

Iron, total, mg/L
Location: APW-8

Mean of all data: 2.30
Standard Deviation of all data: 8.61
Largest Observation Concentration of all data: Xn = 41.7
Test Statistic, high extreme of all data: Tn = 4.58
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	41.7	False		1

Iron, total, mg/L
Location: APW-9

Mean of all data: 1.18
Standard Deviation of all data: 1.36
Largest Observation Concentration of all data: Xn = 5.06
Test Statistic, high extreme of all data: Tn = 2.86
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	5.06	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Lead, dissolved, mg/L
Location: APW-1

Mean of all data: 0.000371
Standard Deviation of all data: 0.000222
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Lead, dissolved, mg/L
Location: APW-10

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Lead, dissolved, mg/L
Location: APW-11

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Lead, dissolved, mg/L
Location: APW-12

Mean of all data: 0.000535
Standard Deviation of all data: 0.000146
Largest Observation Concentration of all data: Xn = 0.00110
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00110	False		1

Lead, dissolved, mg/L
Location: APW-2

Mean of all data: 0.000445
Standard Deviation of all data: 0.000293
Largest Observation Concentration of all data: Xn = 0.00130
Test Statistic, high extreme of all data: Tn = 2.91
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/21/2022	0.00130	False		1

Lead, dissolved, mg/L
Location: APW-3

Mean of all data: 0.000417
Standard Deviation of all data: 0.000244
Largest Observation Concentration of all data: Xn = 0.00110
Test Statistic, high extreme of all data: Tn = 2.80
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	0.00110	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Lead, dissolved, mg/L
Location: APW-4

Mean of all data: 0.000421
Standard Deviation of all data: 0.000270
Largest Observation Concentration of all data: Xn = 0.00130
Test Statistic, high extreme of all data: Tn = 3.25
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00130	False		1

Lead, dissolved, mg/L
Location: APW-5

Mean of all data: 0.000435
Standard Deviation of all data: 0.000363
Largest Observation Concentration of all data: Xn = 0.00170
Test Statistic, high extreme of all data: Tn = 3.48
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00170	False		1

Lead, dissolved, mg/L
Location: APW-6

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Lead, dissolved, mg/L
Location: APW-7

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Lead, dissolved, mg/L
Location: APW-8

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Lead, dissolved, mg/L
Location: APW-9

Mean of all data: 0.000500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Lead, total, mg/L
Location: APW-1

Mean of all data: 0.00342
Standard Deviation of all data: 0.00375
Largest Observation Concentration of all data: Xn = 0.0179
Test Statistic, high extreme of all data: Tn = 3.86
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0179	False		1

Lead, total, mg/L
Location: APW-10

Mean of all data: 0.00452
Standard Deviation of all data: 0.0107
Largest Observation Concentration of all data: Xn = 0.0469
Test Statistic, high extreme of all data: Tn = 3.97
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0469	False		1

Lead, total, mg/L
Location: APW-11

Mean of all data: 0.00525
Standard Deviation of all data: 0.0140
Largest Observation Concentration of all data: Xn = 0.0605
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0605	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Lead, total, mg/L
Location: APW-12

Mean of all data: 0.00452
Standard Deviation of all data: 0.0105
Largest Observation Concentration of all data: Xn = 0.0438
Test Statistic, high extreme of all data: Tn = 3.76
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0438	False		1

Lead, total, mg/L
Location: APW-2

Mean of all data: 0.000759
Standard Deviation of all data: 0.000509
Largest Observation Concentration of all data: Xn = 0.00200
Test Statistic, high extreme of all data: Tn = 2.44
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Lead, total, mg/L
Location: APW-3

Mean of all data: 0.00115
Standard Deviation of all data: 0.00127
Largest Observation Concentration of all data: Xn = 0.00560
Test Statistic, high extreme of all data: Tn = 3.49
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.00560	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Lead, total, mg/L
Location: APW-4

Mean of all data: 0.00177
Standard Deviation of all data: 0.00180
Largest Observation Concentration of all data: Xn = 0.00580
Test Statistic, high extreme of all data: Tn = 2.24
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Lead, total, mg/L
Location: APW-5

Mean of all data: 0.00124
Standard Deviation of all data: 0.00183
Largest Observation Concentration of all data: Xn = 0.00780
Test Statistic, high extreme of all data: Tn = 3.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00780	False		1

Lead, total, mg/L
Location: APW-6

Mean of all data: 0.00106
Standard Deviation of all data: 0.000840
Largest Observation Concentration of all data: Xn = 0.00400
Test Statistic, high extreme of all data: Tn = 3.50
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.00400	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Lead, total, mg/L
Location: APW-7

Mean of all data: 0.00192
Standard Deviation of all data: 0.00575
Largest Observation Concentration of all data: Xn = 0.0276
Test Statistic, high extreme of all data: Tn = 4.46
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0276	False		1

Lead, total, mg/L
Location: APW-8

Mean of all data: 0.00296
Standard Deviation of all data: 0.00993
Largest Observation Concentration of all data: Xn = 0.0484
Test Statistic, high extreme of all data: Tn = 4.57
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0484	False		1

Lead, total, mg/L
Location: APW-9

Mean of all data: 0.00144
Standard Deviation of all data: 0.00140
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 2.55
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Manganese, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00318
Standard Deviation of all data: 0.00201
Largest Observation Concentration of all data: Xn = 0.00910
Test Statistic, high extreme of all data: Tn = 2.94
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	0.00910	False		1

Manganese, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00603
Standard Deviation of all data: 0.00982
Largest Observation Concentration of all data: Xn = 0.0452
Test Statistic, high extreme of all data: Tn = 3.99
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	0.0452	False		1

Manganese, dissolved, mg/L
Location: APW-11

Mean of all data: 0.0117
Standard Deviation of all data: 0.0222
Largest Observation Concentration of all data: Xn = 0.0900
Test Statistic, high extreme of all data: Tn = 3.52
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/04/2019	0.0900	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Manganese, dissolved, mg/L
Location: APW-12

Mean of all data: 1.17
Standard Deviation of all data: 0.293
Largest Observation Concentration of all data: Xn = 1.74
Test Statistic, high extreme of all data: Tn = 1.95
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Manganese, dissolved, mg/L
Location: APW-2

Mean of all data: 0.490
Standard Deviation of all data: 0.310
Largest Observation Concentration of all data: Xn = 1.07
Test Statistic, high extreme of all data: Tn = 1.87
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Manganese, dissolved, mg/L
Location: APW-3

Mean of all data: 0.714
Standard Deviation of all data: 0.260
Largest Observation Concentration of all data: Xn = 1.20
Test Statistic, high extreme of all data: Tn = 1.87
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Manganese, dissolved, mg/L
Location: APW-4

Mean of all data: 2.02
Standard Deviation of all data: 0.910
Largest Observation Concentration of all data: Xn = 5.40
Test Statistic, high extreme of all data: Tn = 3.71
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
10/28/2011	5.40	False		1

Manganese, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00413
Standard Deviation of all data: 0.00698
Largest Observation Concentration of all data: Xn = 0.0400
Test Statistic, high extreme of all data: Tn = 5.14
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	0.0400	False		1

Manganese, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00397
Standard Deviation of all data: 0.00409
Largest Observation Concentration of all data: Xn = 0.0224
Test Statistic, high extreme of all data: Tn = 4.50
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0224	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Manganese, dissolved, mg/L
Location: APW-7

Mean of all data: 0.0790
Standard Deviation of all data: 0.147
Largest Observation Concentration of all data: Xn = 0.611
Test Statistic, high extreme of all data: Tn = 3.62
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/28/2017	0.611	False		1

Manganese, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00315
Standard Deviation of all data: 0.000775
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Manganese, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00334
Standard Deviation of all data: 0.00130
Largest Observation Concentration of all data: Xn = 0.00800
Test Statistic, high extreme of all data: Tn = 3.57
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
08/26/2019	0.00800	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Manganese, total, mg/L
Location: APW-1

Mean of all data: 0.268
Standard Deviation of all data: 0.377
Largest Observation Concentration of all data: Xn = 1.79
Test Statistic, high extreme of all data: Tn = 4.04
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	1.79	False		1

Manganese, total, mg/L
Location: APW-10

Mean of all data: 0.308
Standard Deviation of all data: 0.784
Largest Observation Concentration of all data: Xn = 3.43
Test Statistic, high extreme of all data: Tn = 3.98
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	3.43	False		1

Manganese, total, mg/L
Location: APW-11

Mean of all data: 0.332
Standard Deviation of all data: 0.845
Largest Observation Concentration of all data: Xn = 3.69
Test Statistic, high extreme of all data: Tn = 3.97
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	3.69	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Manganese, total, mg/L
Location: APW-12

Mean of all data: 2.47
Standard Deviation of all data: 2.63
Largest Observation Concentration of all data: Xn = 12.0
Test Statistic, high extreme of all data: Tn = 3.62
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	12.0	False		1

Manganese, total, mg/L
Location: APW-2

Mean of all data: 0.433
Standard Deviation of all data: 0.275
Largest Observation Concentration of all data: Xn = 1.10
Test Statistic, high extreme of all data: Tn = 2.42
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Manganese, total, mg/L
Location: APW-3

Mean of all data: 0.901
Standard Deviation of all data: 0.179
Largest Observation Concentration of all data: Xn = 1.31
Test Statistic, high extreme of all data: Tn = 2.28
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Manganese, total, mg/L
Location: APW-4

Mean of all data: 1.79
Standard Deviation of all data: 0.308
Largest Observation Concentration of all data: Xn = 2.35
Test Statistic, high extreme of all data: Tn = 1.83
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Manganese, total, mg/L
Location: APW-5

Mean of all data: 0.136
Standard Deviation of all data: 0.249
Largest Observation Concentration of all data: Xn = 1.15
Test Statistic, high extreme of all data: Tn = 4.07
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	1.15	False		1

Manganese, total, mg/L
Location: APW-6

Mean of all data: 0.0513
Standard Deviation of all data: 0.0531
Largest Observation Concentration of all data: Xn = 0.233
Test Statistic, high extreme of all data: Tn = 3.42
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.233	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Manganese, total, mg/L
Location: APW-7

Mean of all data: 0.225
Standard Deviation of all data: 0.417
Largest Observation Concentration of all data: Xn = 1.92
Test Statistic, high extreme of all data: Tn = 4.06
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	1.92	False		1

Manganese, total, mg/L
Location: APW-8

Mean of all data: 0.174
Standard Deviation of all data: 0.558
Largest Observation Concentration of all data: Xn = 2.71
Test Statistic, high extreme of all data: Tn = 4.55
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	2.71	False		1

Manganese, total, mg/L
Location: APW-9

Mean of all data: 0.121
Standard Deviation of all data: 0.148
Largest Observation Concentration of all data: Xn = 0.525
Test Statistic, high extreme of all data: Tn = 2.74
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.525	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Mercury, dissolved, mg/L
Location: APW-1

Mean of all data: 0.0000742
Standard Deviation of all data: 0.0000445
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-10

Mean of all data: 0.000100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-11

Mean of all data: 0.000100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Mercury, dissolved, mg/L
Location: APW-12

Mean of all data: 0.000100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-2

Mean of all data: 0.0000759
Standard Deviation of all data: 0.0000435
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-3

Mean of all data: 0.0000759
Standard Deviation of all data: 0.0000435
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.554
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Mercury, dissolved, mg/L
Location: APW-4

Mean of all data: 0.0000786
Standard Deviation of all data: 0.0000418
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.513
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-5

Mean of all data: 0.0000742
Standard Deviation of all data: 0.0000445
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-6

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000219
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Mercury, dissolved, mg/L
Location: APW-7

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-8

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000219
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, dissolved, mg/L
Location: APW-9

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Mercury, total, mg/L
Location: APW-1

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000219
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-10

Mean of all data: 0.000100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-11

Mean of all data: 0.000100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Mercury, total, mg/L
Location: APW-12

Mean of all data: 0.000100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-2

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-3

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Mercury, total, mg/L
Location: APW-4

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-5

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000219
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-6

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000219
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Mercury, total, mg/L
Location: APW-7

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-8

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000219
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Mercury, total, mg/L
Location: APW-9

Mean of all data: 0.000100
Standard Deviation of all data: 0.00000000000194
Largest Observation Concentration of all data: Xn = 0.000100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Nickel, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00248
Standard Deviation of all data: 0.00244
Largest Observation Concentration of all data: Xn = 0.0140
Test Statistic, high extreme of all data: Tn = 4.73
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/24/2011	0.0140	False		1

Nickel, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nickel, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Nickel, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00676
Standard Deviation of all data: 0.00246
Largest Observation Concentration of all data: Xn = 0.0101
Test Statistic, high extreme of all data: Tn = 1.36
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nickel, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00384
Standard Deviation of all data: 0.00308
Largest Observation Concentration of all data: Xn = 0.0120
Test Statistic, high extreme of all data: Tn = 2.65
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nickel, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00345
Standard Deviation of all data: 0.00287
Largest Observation Concentration of all data: Xn = 0.0120
Test Statistic, high extreme of all data: Tn = 2.98
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/17/2012	0.0120	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nickel, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00388
Standard Deviation of all data: 0.00378
Largest Observation Concentration of all data: Xn = 0.0190
Test Statistic, high extreme of all data: Tn = 4.00
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/15/2011	0.0190	False		1

Nickel, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00262
Standard Deviation of all data: 0.00205
Largest Observation Concentration of all data: Xn = 0.0100
Test Statistic, high extreme of all data: Tn = 3.59
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/24/2011	0.0100	False		1

Nickel, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station

Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Nickel, dissolved, mg/L

Location: APW-7

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nickel, dissolved, mg/L

Location: APW-8

Mean of all data: 0.00250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nickel, dissolved, mg/L

Location: APW-9

Mean of all data: 0.00409
Standard Deviation of all data: 0.00325
Largest Observation Concentration of all data: Xn = 0.0119
Test Statistic, high extreme of all data: Tn = 2.40
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Nickel, total, mg/L
Location: APW-1

Mean of all data: 0.0102
Standard Deviation of all data: 0.0123
Largest Observation Concentration of all data: Xn = 0.0583
Test Statistic, high extreme of all data: Tn = 3.92
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0583	False		1

Nickel, total, mg/L
Location: APW-10

Mean of all data: 0.0139
Standard Deviation of all data: 0.0367
Largest Observation Concentration of all data: Xn = 0.160
Test Statistic, high extreme of all data: Tn = 3.98
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.160	False		1

Nickel, total, mg/L
Location: APW-11

Mean of all data: 0.0142
Standard Deviation of all data: 0.0349
Largest Observation Concentration of all data: Xn = 0.152
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.152	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nickel, total, mg/L
Location: APW-12

Mean of all data: 0.0174
Standard Deviation of all data: 0.0228
Largest Observation Concentration of all data: Xn = 0.104
Test Statistic, high extreme of all data: Tn = 3.79
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.104	False		1

Nickel, total, mg/L
Location: APW-2

Mean of all data: 0.00318
Standard Deviation of all data: 0.00150
Largest Observation Concentration of all data: Xn = 0.00700
Test Statistic, high extreme of all data: Tn = 2.55
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nickel, total, mg/L
Location: APW-3

Mean of all data: 0.00304
Standard Deviation of all data: 0.00175
Largest Observation Concentration of all data: Xn = 0.00910
Test Statistic, high extreme of all data: Tn = 3.47
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.00910	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nickel, total, mg/L
Location: APW-4

Mean of all data: 0.00333
Standard Deviation of all data: 0.00233
Largest Observation Concentration of all data: Xn = 0.0107
Test Statistic, high extreme of all data: Tn = 3.17
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/21/2017	0.0107	False		1

Nickel, total, mg/L
Location: APW-5

Mean of all data: 0.00509
Standard Deviation of all data: 0.00694
Largest Observation Concentration of all data: Xn = 0.0332
Test Statistic, high extreme of all data: Tn = 4.05
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0332	False		1

Nickel, total, mg/L
Location: APW-6

Mean of all data: 0.00324
Standard Deviation of all data: 0.00187
Largest Observation Concentration of all data: Xn = 0.0103
Test Statistic, high extreme of all data: Tn = 3.78
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0103	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Nickel, total, mg/L
Location: APW-7

Mean of all data: 0.00474
Standard Deviation of all data: 0.00842
Largest Observation Concentration of all data: Xn = 0.0417
Test Statistic, high extreme of all data: Tn = 4.39
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0417	False		1

Nickel, total, mg/L
Location: APW-8

Mean of all data: 0.00843
Standard Deviation of all data: 0.0244
Largest Observation Concentration of all data: Xn = 0.120
Test Statistic, high extreme of all data: Tn = 4.57
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.120	False		1

Nickel, total, mg/L
Location: APW-9

Mean of all data: 0.00721
Standard Deviation of all data: 0.00546
Largest Observation Concentration of all data: Xn = 0.0194
Test Statistic, high extreme of all data: Tn = 2.23
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Nitrate nitrogen, dissolved, mg/L
Location: APW-1

Mean of all data: 3.99
Standard Deviation of all data: 1.45
Largest Observation Concentration of all data: Xn = 8.24
Test Statistic, high extreme of all data: Tn = 2.92
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/05/2018	8.24	False		1

Nitrate nitrogen, dissolved, mg/L
Location: APW-10

Mean of all data: 3.09
Standard Deviation of all data: 0.731
Largest Observation Concentration of all data: Xn = 4.53
Test Statistic, high extreme of all data: Tn = 1.97
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrate nitrogen, dissolved, mg/L
Location: APW-11

Mean of all data: 2.92
Standard Deviation of all data: 0.884
Largest Observation Concentration of all data: Xn = 5.02
Test Statistic, high extreme of all data: Tn = 2.38
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
08/18/2022	0.656	False	-1	

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nitrate nitrogen, dissolved, mg/L
Location: APW-12

Mean of all data: 0.976
Standard Deviation of all data: 1.41
Largest Observation Concentration of all data: Xn = 5.50
Test Statistic, high extreme of all data: Tn = 3.20
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	5.50	False		1

Nitrate nitrogen, dissolved, mg/L
Location: APW-2

Mean of all data: 0.0492
Standard Deviation of all data: 0.0877
Largest Observation Concentration of all data: Xn = 0.400
Test Statistic, high extreme of all data: Tn = 4.00
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	0.400	False		1

Nitrate nitrogen, dissolved, mg/L
Location: APW-3

Mean of all data: 0.0367
Standard Deviation of all data: 0.0880
Largest Observation Concentration of all data: Xn = 0.490
Test Statistic, high extreme of all data: Tn = 5.15
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	0.490	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Nitrate nitrogen, dissolved, mg/L
Location: APW-4

Mean of all data: 0.0590
Standard Deviation of all data: 0.0831
Largest Observation Concentration of all data: Xn = 0.310
Test Statistic, high extreme of all data: Tn = 3.02
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	0.310	False		1

Nitrate nitrogen, dissolved, mg/L
Location: APW-5

Mean of all data: 2.18
Standard Deviation of all data: 0.717
Largest Observation Concentration of all data: Xn = 4.29
Test Statistic, high extreme of all data: Tn = 2.95
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	4.29	False		1

Nitrate nitrogen, dissolved, mg/L
Location: APW-6

Mean of all data: 0.413
Standard Deviation of all data: 0.422
Largest Observation Concentration of all data: Xn = 2.13
Test Statistic, high extreme of all data: Tn = 4.07
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	2.13	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Nitrate nitrogen, dissolved, mg/L
Location: APW-7

Mean of all data: 1.96
Standard Deviation of all data: 1.92
Largest Observation Concentration of all data: Xn = 5.47
Test Statistic, high extreme of all data: Tn = 1.83
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrate nitrogen, dissolved, mg/L
Location: APW-8

Mean of all data: 4.37
Standard Deviation of all data: 0.699
Largest Observation Concentration of all data: Xn = 5.77
Test Statistic, high extreme of all data: Tn = 2.00
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrate nitrogen, dissolved, mg/L
Location: APW-9

Mean of all data: 3.32
Standard Deviation of all data: 1.35
Largest Observation Concentration of all data: Xn = 8.33
Test Statistic, high extreme of all data: Tn = 3.70
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
07/29/2020	8.33	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nitrite nitrogen, dissolved, mg/L
Location: APW-1

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000295
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000118
T Critical of all data: Tcr = 2.58

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-10

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000340
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000102
T Critical of all data: Tcr = 2.44

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-11

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000340
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000102
T Critical of all data: Tcr = 2.44

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Nitrite nitrogen, dissolved, mg/L
Location: APW-12

Mean of all data: 0.0297
Standard Deviation of all data: 0.0134
Largest Observation Concentration of all data: Xn = 0.0700
Test Statistic, high extreme of all data: Tn = 3.01
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
02/17/2020	0.0700	False		1

Nitrite nitrogen, dissolved, mg/L
Location: APW-2

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000302
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000115
T Critical of all data: Tcr = 2.56

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-3

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000295
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000118
T Critical of all data: Tcr = 2.58

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nitrite nitrogen, dissolved, mg/L
Location: APW-4

Mean of all data: 0.0250
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-5

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000295
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000118
T Critical of all data: Tcr = 2.58

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-6

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000295
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000118
T Critical of all data: Tcr = 2.58

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Nitrite nitrogen, dissolved, mg/L
Location: APW-7

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000295
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000118
T Critical of all data: Tcr = 2.58

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-8

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000295
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000118
T Critical of all data: Tcr = 2.58

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Nitrite nitrogen, dissolved, mg/L
Location: APW-9

Mean of all data: 0.0250
Standard Deviation of all data: 0.000000000302
Largest Observation Concentration of all data: Xn = 0.0250
Test Statistic, high extreme of all data: Tn = -.0000000115
T Critical of all data: Tcr = 2.56

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

pH (field), STD
Location: APW-1

Mean of all data: 7.01
Standard Deviation of all data: 0.28
Largest Observation Concentration of all data: Xn = 7.83
Test Statistic, high extreme of all data: Tn = 2.91
T Critical of all data: Tcr = 2.74

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/24/2011	7.83	False		1

pH (field), STD
Location: APW-10

Mean of all data: 7.53
Standard Deviation of all data: 0.15
Largest Observation Concentration of all data: Xn = 7.75
Test Statistic, high extreme of all data: Tn = 1.47
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	7.11	False	-1	

pH (field), STD
Location: APW-11

Mean of all data: 7.39
Standard Deviation of all data: 0.14
Largest Observation Concentration of all data: Xn = 7.57
Test Statistic, high extreme of all data: Tn = 1.28
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	7.03	False	-1	

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

pH (field), STD
Location: APW-12

Mean of all data: 6.92
Standard Deviation of all data: 0.18
Largest Observation Concentration of all data: Xn = 7.24
Test Statistic, high extreme of all data: Tn = 1.77
T Critical of all data: Tcr = 2.47

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

pH (field), STD
Location: APW-2

Mean of all data: 6.88
Standard Deviation of all data: 0.25
Largest Observation Concentration of all data: Xn = 7.41
Test Statistic, high extreme of all data: Tn = 2.10
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	5.98	False	-1	

pH (field), STD
Location: APW-3

Mean of all data: 7.54
Standard Deviation of all data: 0.34
Largest Observation Concentration of all data: Xn = 8.36
Test Statistic, high extreme of all data: Tn = 2.42
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

pH (field), STD
Location: APW-4

Mean of all data: 6.89
Standard Deviation of all data: 0.25
Largest Observation Concentration of all data: Xn = 7.42
Test Statistic, high extreme of all data: Tn = 2.08
T Critical of all data: Tcr = 2.70

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	5.88	False	-1	

pH (field), STD
Location: APW-5

Mean of all data: 7.36
Standard Deviation of all data: 0.26
Largest Observation Concentration of all data: Xn = 7.91
Test Statistic, high extreme of all data: Tn = 2.10
T Critical of all data: Tcr = 2.74

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	6.44	False	-1	

pH (field), STD
Location: APW-6

Mean of all data: 7.17
Standard Deviation of all data: 0.17
Largest Observation Concentration of all data: Xn = 7.53
Test Statistic, high extreme of all data: Tn = 2.13
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	6.72	False	-1	

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

pH (field), STD
Location: APW-7

Mean of all data: 7.01
Standard Deviation of all data: 0.13
Largest Observation Concentration of all data: Xn = 7.16
Test Statistic, high extreme of all data: Tn = 1.15
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

pH (field), STD
Location: APW-8

Mean of all data: 7.35
Standard Deviation of all data: 0.12
Largest Observation Concentration of all data: Xn = 7.56
Test Statistic, high extreme of all data: Tn = 1.75
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/30/2021	6.99	False	-1	

pH (field), STD
Location: APW-9

Mean of all data: 6.92
Standard Deviation of all data: 0.13
Largest Observation Concentration of all data: Xn = 7.19
Test Statistic, high extreme of all data: Tn = 2.00
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Selenium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.0152
Standard Deviation of all data: 0.00833
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.579
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.0214
Standard Deviation of all data: 0.00596
Largest Observation Concentration of all data: Xn = 0.0453
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	0.0453	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Selenium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.0200
Standard Deviation of all data: 0.000000000329
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.0155
Standard Deviation of all data: 0.00810
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.552
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.0155
Standard Deviation of all data: 0.00822
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.553
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Selenium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.0190
Standard Deviation of all data: 0.00475
Largest Observation Concentration of all data: Xn = 0.0300
Test Statistic, high extreme of all data: Tn = 2.32
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	<0.0	True	-1	

Selenium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.0153
Standard Deviation of all data: 0.00815
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.578
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Selenium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.0720
Standard Deviation of all data: 0.0179
Largest Observation Concentration of all data: Xn = 0.0963
Test Statistic, high extreme of all data: Tn = 1.36
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/21/2022	<0.0200	True	-1	

Selenium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Selenium, total, mg/L
Location: APW-1

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-10

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-11

Mean of all data: 0.0216
Standard Deviation of all data: 0.00658
Largest Observation Concentration of all data: Xn = 0.0479
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	0.0479	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Selenium, total, mg/L
Location: APW-12

Mean of all data: 0.0200
Standard Deviation of all data: 0.000000000329
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-2

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-3

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Selenium, total, mg/L
Location: APW-4

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-5

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-6

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Selenium, total, mg/L
Location: APW-7

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-8

Mean of all data: 0.0773
Standard Deviation of all data: 0.0154
Largest Observation Concentration of all data: Xn = 0.111
Test Statistic, high extreme of all data: Tn = 2.19
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Selenium, total, mg/L
Location: APW-9

Mean of all data: 0.0200
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.0200
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Silver, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00247
Standard Deviation of all data: 0.00152
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.681
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00350
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00350
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Silver, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00350
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00252
Standard Deviation of all data: 0.00148
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.662
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00252
Standard Deviation of all data: 0.00148
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.662
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Silver, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00261
Standard Deviation of all data: 0.00143
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.625
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00247
Standard Deviation of all data: 0.00152
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.681
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00333
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Silver, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00333
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Silver, total, mg/L
Location: APW-1

Mean of all data: 0.00333
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-10

Mean of all data: 0.00350
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-11

Mean of all data: 0.00350
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Silver, total, mg/L
Location: APW-12

Mean of all data: 0.00350
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-2

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-3

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Silver, total, mg/L
Location: APW-4

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-5

Mean of all data: 0.00333
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-6

Mean of all data: 0.00333
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Silver, total, mg/L
Location: APW-7

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-8

Mean of all data: 0.00333
Standard Deviation of all data: 0.000388
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Silver, total, mg/L
Location: APW-9

Mean of all data: 0.00332
Standard Deviation of all data: 0.000395
Largest Observation Concentration of all data: Xn = 0.00350
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-1

Mean of all data: 445
Standard Deviation of all data: 181
Largest Observation Concentration of all data: Xn = 1030
Test Statistic, high extreme of all data: Tn = 3
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/17/2021	1030	False		1

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-10

Mean of all data: 555
Standard Deviation of all data: 103
Largest Observation Concentration of all data: Xn = 809
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-11

Mean of all data: 648
Standard Deviation of all data: 205
Largest Observation Concentration of all data: Xn = 1100
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-12

Mean of all data: 770
Standard Deviation of all data: 157
Largest Observation Concentration of all data: Xn = 1138
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 2

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-2

Mean of all data: 800
Standard Deviation of all data: 192
Largest Observation Concentration of all data: Xn = 1152
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-3

Mean of all data: 1066
Standard Deviation of all data: 168
Largest Observation Concentration of all data: Xn = 1430
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-4

Mean of all data: 804
Standard Deviation of all data: 115
Largest Observation Concentration of all data: Xn = 967
Test Statistic, high extreme of all data: Tn = 1
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-5

Mean of all data: 520
Standard Deviation of all data: 84
Largest Observation Concentration of all data: Xn = 707
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2010	267	False	-1	

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-6

Mean of all data: 580
Standard Deviation of all data: 108
Largest Observation Concentration of all data: Xn = 793
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-7

Mean of all data: 654
Standard Deviation of all data: 85
Largest Observation Concentration of all data: Xn = 819
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-8

Mean of all data: 987
Standard Deviation of all data: 122
Largest Observation Concentration of all data: Xn = 1240
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Specific Conductance @ 25C (field), micromhos/cm
Location: APW-9

Mean of all data: 1305
Standard Deviation of all data: 257
Largest Observation Concentration of all data: Xn = 1740
Test Statistic, high extreme of all data: Tn = 2
T Critical of all data: Tcr = 3

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Sulfate, dissolved, mg/L
Location: APW-1

Mean of all data: 16.2
Standard Deviation of all data: 4.94
Largest Observation Concentration of all data: Xn = 33.0
Test Statistic, high extreme of all data: Tn = 3.40
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/24/2011	33.0	False		1

Sulfate, dissolved, mg/L
Location: APW-10

Mean of all data: 82.5
Standard Deviation of all data: 26.9
Largest Observation Concentration of all data: Xn = 126.
Test Statistic, high extreme of all data: Tn = 1.62
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Sulfate, dissolved, mg/L
Location: APW-11

Mean of all data: 102.
Standard Deviation of all data: 75.2
Largest Observation Concentration of all data: Xn = 309.
Test Statistic, high extreme of all data: Tn = 2.75
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	309.	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Sulfate, dissolved, mg/L
Location: APW-12

Mean of all data: 45.9
Standard Deviation of all data: 19.0
Largest Observation Concentration of all data: Xn = 96.0
Test Statistic, high extreme of all data: Tn = 2.63
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	96.0	False		1

Sulfate, dissolved, mg/L
Location: APW-2

Mean of all data: 22.9
Standard Deviation of all data: 14.9
Largest Observation Concentration of all data: Xn = 67.0
Test Statistic, high extreme of all data: Tn = 2.96
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/27/2018	67.0	False		1

Sulfate, dissolved, mg/L
Location: APW-3

Mean of all data: 140.
Standard Deviation of all data: 105.
Largest Observation Concentration of all data: Xn = 310.
Test Statistic, high extreme of all data: Tn = 1.62
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Sulfate, dissolved, mg/L
Location: APW-4

Mean of all data: 24.7
Standard Deviation of all data: 11.8
Largest Observation Concentration of all data: Xn = 53.0
Test Statistic, high extreme of all data: Tn = 2.40
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Sulfate, dissolved, mg/L
Location: APW-5

Mean of all data: 31.1
Standard Deviation of all data: 19.2
Largest Observation Concentration of all data: Xn = 83.0
Test Statistic, high extreme of all data: Tn = 2.69
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Sulfate, dissolved, mg/L
Location: APW-6

Mean of all data: 20.8
Standard Deviation of all data: 9.00
Largest Observation Concentration of all data: Xn = 38.0
Test Statistic, high extreme of all data: Tn = 1.91
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Sulfate, dissolved, mg/L
Location: APW-7

Mean of all data: 30.3
Standard Deviation of all data: 7.31
Largest Observation Concentration of all data: Xn = 41.0
Test Statistic, high extreme of all data: Tn = 1.46
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Sulfate, dissolved, mg/L
Location: APW-8

Mean of all data: 304.
Standard Deviation of all data: 63.3
Largest Observation Concentration of all data: Xn = 421.
Test Statistic, high extreme of all data: Tn = 1.85
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Sulfate, dissolved, mg/L
Location: APW-9

Mean of all data: 450.
Standard Deviation of all data: 150.
Largest Observation Concentration of all data: Xn = 757.
Test Statistic, high extreme of all data: Tn = 2.05
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Thallium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.000677
Standard Deviation of all data: 0.000439
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.735
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Thallium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.000690
Standard Deviation of all data: 0.000431
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.720
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.000724
Standard Deviation of all data: 0.000414
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.667
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Thallium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.000714
Standard Deviation of all data: 0.000418
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.684
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.000677
Standard Deviation of all data: 0.000439
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.735
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.000913
Standard Deviation of all data: 0.000194
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Thallium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.000909
Standard Deviation of all data: 0.000197
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.000913
Standard Deviation of all data: 0.000194
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.000909
Standard Deviation of all data: 0.000197
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Thallium, total, mg/L
Location: APW-1

Mean of all data: 0.000913
Standard Deviation of all data: 0.000194
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-10

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-11

Mean of all data: 0.00100
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Thallium, total, mg/L
Location: APW-12

Mean of all data: 0.00108
Standard Deviation of all data: 0.000340
Largest Observation Concentration of all data: Xn = 0.00240
Test Statistic, high extreme of all data: Tn = 3.88
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.00240	False		1

Thallium, total, mg/L
Location: APW-2

Mean of all data: 0.000909
Standard Deviation of all data: 0.000197
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-3

Mean of all data: 0.000959
Standard Deviation of all data: 0.000322
Largest Observation Concentration of all data: Xn = 0.00210
Test Statistic, high extreme of all data: Tn = 3.55
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
08/06/2021	0.00210	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Thallium, total, mg/L
Location: APW-4

Mean of all data: 0.000909
Standard Deviation of all data: 0.000197
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-5

Mean of all data: 0.000913
Standard Deviation of all data: 0.000194
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-6

Mean of all data: 0.000913
Standard Deviation of all data: 0.000194
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Thallium, total, mg/L
Location: APW-7

Mean of all data: 0.000909
Standard Deviation of all data: 0.000197
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-8

Mean of all data: 0.000913
Standard Deviation of all data: 0.000194
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.449
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Thallium, total, mg/L
Location: APW-9

Mean of all data: 0.000909
Standard Deviation of all data: 0.000197
Largest Observation Concentration of all data: Xn = 0.00100
Test Statistic, high extreme of all data: Tn = 0.461
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Total Dissolved Solids, mg/L
Location: APW-1

Mean of all data: 223.
Standard Deviation of all data: 76.5
Largest Observation Concentration of all data: Xn = 420.
Test Statistic, high extreme of all data: Tn = 2.57
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Total Dissolved Solids, mg/L
Location: APW-10

Mean of all data: 326.
Standard Deviation of all data: 45.0
Largest Observation Concentration of all data: Xn = 408.
Test Statistic, high extreme of all data: Tn = 1.82
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Total Dissolved Solids, mg/L
Location: APW-11

Mean of all data: 395.
Standard Deviation of all data: 147.
Largest Observation Concentration of all data: Xn = 812.
Test Statistic, high extreme of all data: Tn = 2.83
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/26/2021	812.	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 | **LT Multiplier: x 0.50**
Confidence Level: 95% | **Number of Outliers: One Outlier**
Transform: None

Total Dissolved Solids, mg/L
Location: APW-12

Mean of all data: 423.
Standard Deviation of all data: 105.
Largest Observation Concentration of all data: Xn = 730.
Test Statistic, high extreme of all data: Tn = 2.91
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	730.	False		1

Total Dissolved Solids, mg/L
Location: APW-2

Mean of all data: 465.
Standard Deviation of all data: 101.
Largest Observation Concentration of all data: Xn = 630.
Test Statistic, high extreme of all data: Tn = 1.64
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Total Dissolved Solids, mg/L
Location: APW-3

Mean of all data: 697.
Standard Deviation of all data: 83.5
Largest Observation Concentration of all data: Xn = 970.
Test Statistic, high extreme of all data: Tn = 3.27
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/17/2012	970.	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Total Dissolved Solids, mg/L
Location: APW-4

Mean of all data: 453.
Standard Deviation of all data: 75.4
Largest Observation Concentration of all data: Xn = 690.
Test Statistic, high extreme of all data: Tn = 3.15
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	690.	False		1

Total Dissolved Solids, mg/L
Location: APW-5

Mean of all data: 277.
Standard Deviation of all data: 56.0
Largest Observation Concentration of all data: Xn = 382.
Test Statistic, high extreme of all data: Tn = 1.87
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Total Dissolved Solids, mg/L
Location: APW-6

Mean of all data: 314.
Standard Deviation of all data: 47.6
Largest Observation Concentration of all data: Xn = 398.
Test Statistic, high extreme of all data: Tn = 1.76
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Total Dissolved Solids, mg/L
Location: APW-7

Mean of all data: 352.
Standard Deviation of all data: 43.0
Largest Observation Concentration of all data: Xn = 464.
Test Statistic, high extreme of all data: Tn = 2.61
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
01/29/2019	464.	False		1

Total Dissolved Solids, mg/L
Location: APW-8

Mean of all data: 669.
Standard Deviation of all data: 86.0
Largest Observation Concentration of all data: Xn = 832.
Test Statistic, high extreme of all data: Tn = 1.90
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Total Dissolved Solids, mg/L
Location: APW-9

Mean of all data: 974.
Standard Deviation of all data: 242.
Largest Observation Concentration of all data: Xn = 1430.
Test Statistic, high extreme of all data: Tn = 1.88
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Vanadium, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Vanadium, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00500
Standard Deviation of all data: 0.0000000000823
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Vanadium, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Vanadium, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Vanadium, total, mg/L
Location: APW-1

Mean of all data: 0.00591
Standard Deviation of all data: 0.00337
Largest Observation Concentration of all data: Xn = 0.0205
Test Statistic, high extreme of all data: Tn = 4.32
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0205	False		1

Vanadium, total, mg/L
Location: APW-10

Mean of all data: 0.00818
Standard Deviation of all data: 0.0135
Largest Observation Concentration of all data: Xn = 0.0622
Test Statistic, high extreme of all data: Tn = 4.01
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0622	False		1

Vanadium, total, mg/L
Location: APW-11

Mean of all data: 0.00958
Standard Deviation of all data: 0.0174
Largest Observation Concentration of all data: Xn = 0.0790
Test Statistic, high extreme of all data: Tn = 3.98
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0790	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None
LT Multiplier: x 0.50
Number of Outliers: One Outlier

Vanadium, total, mg/L
Location: APW-12

Mean of all data: 0.0108
Standard Deviation of all data: 0.0205
Largest Observation Concentration of all data: Xn = 0.0894
Test Statistic, high extreme of all data: Tn = 3.83
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0894	False		1

Vanadium, total, mg/L
Location: APW-2

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, total, mg/L
Location: APW-3

Mean of all data: 0.00537
Standard Deviation of all data: 0.00175
Largest Observation Concentration of all data: Xn = 0.0132
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0132	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Vanadium, total, mg/L
Location: APW-4

Mean of all data: 0.00607
Standard Deviation of all data: 0.00287
Largest Observation Concentration of all data: Xn = 0.0152
Test Statistic, high extreme of all data: Tn = 3.19
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0152	False		1

Vanadium, total, mg/L
Location: APW-5

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Vanadium, total, mg/L
Location: APW-6

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Vanadium, total, mg/L
Location: APW-7

Mean of all data: 0.00758
Standard Deviation of all data: 0.0121
Largest Observation Concentration of all data: Xn = 0.0618
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0618	False		1

Vanadium, total, mg/L
Location: APW-8

Mean of all data: 0.00705
Standard Deviation of all data: 0.00984
Largest Observation Concentration of all data: Xn = 0.0522
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0522	False		1

Vanadium, total, mg/L
Location: APW-9

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Zinc, dissolved, mg/L
Location: APW-1

Mean of all data: 0.00407
Standard Deviation of all data: 0.00316
Largest Observation Concentration of all data: Xn = 0.0162
Test Statistic, high extreme of all data: Tn = 3.84
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.0162	False		1

Zinc, dissolved, mg/L
Location: APW-10

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-11

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Zinc, dissolved, mg/L
Location: APW-12

Mean of all data: 0.00500
Standard Deviation of all data: 0.0000000000823
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-2

Mean of all data: 0.00401
Standard Deviation of all data: 0.00210
Largest Observation Concentration of all data: Xn = 0.00640
Test Statistic, high extreme of all data: Tn = 1.14
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-3

Mean of all data: 0.00421
Standard Deviation of all data: 0.00254
Largest Observation Concentration of all data: Xn = 0.0120
Test Statistic, high extreme of all data: Tn = 3.07
T Critical of all data: Tcr = 2.73

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
06/18/2012	0.0120	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Zinc, dissolved, mg/L
Location: APW-4

Mean of all data: 0.00419
Standard Deviation of all data: 0.00203
Largest Observation Concentration of all data: Xn = 0.00720
Test Statistic, high extreme of all data: Tn = 1.48
T Critical of all data: Tcr = 2.71

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-5

Mean of all data: 0.00371
Standard Deviation of all data: 0.00222
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.580
T Critical of all data: Tcr = 2.76

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-6

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022 **LT Multiplier: x 0.50**
Confidence Level: 95% **Number of Outliers: One Outlier**
Transform: None

Zinc, dissolved, mg/L
Location: APW-7

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-8

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Zinc, dissolved, mg/L
Location: APW-9

Mean of all data: 0.00500
Standard Deviation of all data: 0.0
Largest Observation Concentration of all data: Xn = 0.00500
Test Statistic, high extreme of all data: Tn = 0.0
T Critical of all data: Tcr = 0.0

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side

No Outliers

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Zinc, total, mg/L
Location: APW-1

Mean of all data: 0.0102
Standard Deviation of all data: 0.0104
Largest Observation Concentration of all data: Xn = 0.0510
Test Statistic, high extreme of all data: Tn = 3.91
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0510	False		1

Zinc, total, mg/L
Location: APW-10

Mean of all data: 0.0155
Standard Deviation of all data: 0.0383
Largest Observation Concentration of all data: Xn = 0.168
Test Statistic, high extreme of all data: Tn = 3.98
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.168	False		1

Zinc, total, mg/L
Location: APW-11

Mean of all data: 0.0183
Standard Deviation of all data: 0.0432
Largest Observation Concentration of all data: Xn = 0.189
Test Statistic, high extreme of all data: Tn = 3.95
T Critical of all data: Tcr = 2.50

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.189	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

Zinc, total, mg/L
Location: APW-12

Mean of all data: 0.0183
Standard Deviation of all data: 0.0436
Largest Observation Concentration of all data: Xn = 0.185
Test Statistic, high extreme of all data: Tn = 3.82
T Critical of all data: Tcr = 2.48

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.185	False		1

Zinc, total, mg/L
Location: APW-2

Mean of all data: 0.00598
Standard Deviation of all data: 0.00458
Largest Observation Concentration of all data: Xn = 0.0265
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
11/11/2021	0.0265	False		1

Zinc, total, mg/L
Location: APW-3

Mean of all data: 0.00753
Standard Deviation of all data: 0.00618
Largest Observation Concentration of all data: Xn = 0.0275
Test Statistic, high extreme of all data: Tn = 3.23
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0275	False		1

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Zinc, total, mg/L
Location: APW-4

Mean of all data: 0.0108
Standard Deviation of all data: 0.00972
Largest Observation Concentration of all data: Xn = 0.0369
Test Statistic, high extreme of all data: Tn = 2.69
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/13/2021	0.0369	False		1

Zinc, total, mg/L
Location: APW-5

Mean of all data: 0.00580
Standard Deviation of all data: 0.00281
Largest Observation Concentration of all data: Xn = 0.0173
Test Statistic, high extreme of all data: Tn = 4.09
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0173	False		1

Zinc, total, mg/L
Location: APW-6

Mean of all data: 0.00536
Standard Deviation of all data: 0.00173
Largest Observation Concentration of all data: Xn = 0.0133
Test Statistic, high extreme of all data: Tn = 4.59
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0133	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
LT Multiplier: x 0.50
Confidence Level: 95%
Number of Outliers: One Outlier
Transform: None

Zinc, total, mg/L
Location: APW-7

Mean of all data: 0.00910
Standard Deviation of all data: 0.0193
Largest Observation Concentration of all data: Xn = 0.0953
Test Statistic, high extreme of all data: Tn = 4.48
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
09/19/2017	0.0953	False		1

Zinc, total, mg/L
Location: APW-8

Mean of all data: 0.0116
Standard Deviation of all data: 0.0291
Largest Observation Concentration of all data: Xn = 0.145
Test Statistic, high extreme of all data: Tn = 4.58
T Critical of all data: Tcr = 2.62

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
12/09/2019	0.145	False		1

Zinc, total, mg/L
Location: APW-9

Mean of all data: 0.00613
Standard Deviation of all data: 0.00299
Largest Observation Concentration of all data: Xn = 0.0154
Test Statistic, high extreme of all data: Tn = 3.10
T Critical of all data: Tcr = 2.60

Sample Date	Value	LT_Value	Outlier Low Side	Outlier High Side
03/21/2018	0.0154	False		1

Based on Grubbs one-sided outlier test

Meredosia Power Station
Outlier Analysis Results

User Supplied Information

Date Range: 12/13/2010 to 12/21/2022
Confidence Level: 95%
Transform: None

LT Multiplier: x 0.50
Number of Outliers: One Outlier

APPENDIX B2
TEST DESCRIPTIONS

MANAGES

Groundwater Data Management and Evaluation Software

Software Manual Product ID #1012581

Software Manual, February 2010

EPRI Project Manager
K. Ladwig

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NOTE

For further information about EPRI, call the EPRI Customer Assistance Center at 800.313.3774 or e-mail askepri@epri.com.

10
STATISTICAL ANALYSIS

Stand-Alone Statistical Tests

Statistical Evaluation Report

The Statistical Evaluation Report is comprised of a series of subreports as described below.

User Selections:

- One location.
- Sample date range for data selection.
- Interval length: the length of the averaging period in months (1,2,3,4, or 6).
- One parameter.
- Non-detect processing: multiplier between 0 and 1.
- One-sided confidence $(1-\alpha)$ level – 0.90, 0.95 or 0.99.
- Limit type: used in the statistical overview to determine exceedances.

Mann-Kendall Trend and Seasonal Analysis Tests

The Mann-Kendall test for trend is insensitive to the presence or absence of seasonality. The test is non-parametric and does not assume any type of data distribution. Nonetheless, two forms of the test are provided in MANAGES, one ignoring data seasonality even if it is present, and one considering data seasonality. In the test, the null hypothesis, H_0, is that the Sen trend is zero, and the alternate hypothesis, H_a, is that the trend is non-zero.

In general, the Mann-Kendall test considering seasonality indicates a larger range for allowable Sen estimate of trend when seasonality is actually present than the range indicated by the test performed ignoring seasonality.

In the Mann-Kendall Trend Analysis, available in under the Statistical Evaluation Report and in the Statistical Procedure for Detection Monitoring, and Mann-Kendall Seasonal Analysis, found under the Statistical Evaluation Report, MANAGES first calculates the Sen slope and the upper and lower confidence limits of the Sen slope, and then determines whether the Sen slope is statistically significant. Slope is statistically significant if it is non-zero.

Mann-Kendall Test for Sen Slope Significance – a two-sided, non-parametric method for data sets as small as 10, unless there are many tied (e.g., equal, NDs are treated as tieds) values (Gilbert, 1987; p. 208)	
Indicator Function $\mathrm{sgn}(x_{ij} - x_{jk})$	$= 1$ if $(x_{ij} - x_{jk}) > 0$ $= 0$ if $(x_{ij} - x_{jk}) = 0$ $= -1$ if $(x_{ij} - x_{jk}) < 0$ where $x_{i1}, x_{i2}, \ldots, x_{in}$ are the time ordered data (n_i is total of data in the i-th season).
Mann-Kendall Statistic, S_i	$= \sum_{k=1}^{n_i-1} \sum_{j=k+1}^{n_i} \mathrm{sgn}(x_{ij} - x_{jk})$
Variance of S_i $VAR(S_i)$	$VAR(S_i) = \frac{1}{18}\left\{ n_i(n_i-1)(2n_i+5) - \sum_{p=1}^{g_i} t_{ip}(t_{ip}-1)(2t_{ip}+5) - \sum_{q=1}^{h_i} u_{iq}(u_{iq}-1)(2u_{iq}+5) \right\}$ $+ \frac{\sum_{p=1}^{g_i} t_{ip}(t_{ip}-1)(t_{ip}-2) \sum_{q=1}^{h_i} u_{iq}(u_{iq}-1)(u_{iq}-2)}{9n_i(n_i-1)(n_i-2)}$ $+ \frac{\sum_{p=1}^{g_i} t_{ip}(t_{ip}-1) \sum_{q=1}^{h_i} u_{iq}(u_{iq}-1)}{2n_i(n_i-1)}.$ The variable g_i is the number of tied groups (equal-valued) data in the i-th season, t_{ip} is the number of tied data in the p-th group for the i-th season, h_i is the number of sampling times (or time periods) in the i-th season that contain multiple data, u_{iq} is the number of multiple data in the q-th time period in the i-th season, and n_i is the number of data values in the i-th season.

Test Statistic, Z	If $S' = \sum_{i=1}^{K} S_i$, where K is the number of seasons, then the test statistic Z is computed as: $$Z = \begin{cases} \dfrac{S'-1}{[VAR(S')]^{1/2}} & \text{iff } S' > 0 \\ 0 & \text{iff } S' = 0 \\ \dfrac{S'+1}{[VAR(S')]^{1/2}} & \text{iff } S' < 0 \end{cases}$$ Where "iff" is an acroym meaning: if-and-only-if. A positive Z value means an upward trend and a negative Z value means a negative trend.
Hypothesis Test: H_0 = no trend H_a = trend present This is a two-sided test at the α significance level.	Accept the null hypothesis H_0 of no trend if $\lvert Z \rvert \leq Z_{1-\alpha/2}$ Reject the null hypothesis H_0 if $\lvert Z \rvert > Z_{1-\alpha/2}$ where $Z_{1-\alpha/2}$ is obtained from Table A1 in Gilbert (1987; p. 254).

Kruskal-Wallis Analysis (Test for Seasonality)

To perform the Kruskal-Wallis test for data seasonality, data points are first segmented according to season (Gilbert, 1987). The null hypothesis, H_0, is that all seasons have the same mean value. The alternative hypothesis, H_a ,is that at least one season has a mean larger or smaller than the mean of at least one other season. Montgomery et al. (1987) provide additional information on groundwater data seasonality. This is a two-sided, non-parametric test.

In MANAGES, the Kruskal-Wallis Test for Seasonality is found under Data Review // Non-Parametric Methods // Kruskal-Wallis Analysis. It determines whether the seasonal means for the specified parameter at the specified location are statistically the same.

	or $Z_i \geq SCL$.

Outlier Tests

Outlier tests are useful in detecting inconsistencies of measurement within a data set. An outlier is defined as an observation that appears to deviate markedly from other values of a sample set. There are many possible reasons for the presence of an outlier, including 1) the presence of a true but extreme value from a single population, resulting from random variability inherent in the data; 2) an improper identification of the underlying distribution describing the population from which the sample set comes from; 3) the occurrence of some unknown event(s) such as a spill, creating a mixture of two or more populations; 4) a gross deviation from prescribed sampling procedures or laboratory analysis; 5) a transcription error in the data value or data unit of measurement.

USEPA (1989; p. 8-11) states that the purpose of a test for outliers is to determine whether or not there is statistical evidence that an observation that appears extreme does not fit the distribution of the rest of the data. If an observation is identified as an outlier, then steps need to be taken to determine whether it is the result of an error or a valid extreme observation. If a true error, such as in transcription, dilution, or analytical procedure, can be identified, then the suspect value should be replaced with its corrected value. If the source of the error can be determined but no correction is possible, then the observation is deleted and the reason for deletion is reported along with any statistical analysis. If no source of error can be documented, then it must be assumed that the observation is a true but extreme value of the data set. If this is the case, the outlier observation(s) must not be altered or excluded from any statistical analysis. Identification of an observation as an outlier but with no error documented could be used to suggest resampling to confirm the value (USEPA, 1989; p. 8-13).

The outlier tests provided in MANAGES are based on either the single outlier test of Grubbs (1969), which is used by USEPA (1989; pp. 8-10 to 8-13) or the single outlier test of Dixon (1951, 1953), which is used by USEPA (2000; pp. 4-24) and by ASTM (1998). The outlier tests assume the data come from a normal distribution. Only one outlier, either an extreme low or an extreme high, can be detected during a single analysis of a data set. Additional outliers can be detected by temporarily removing a previously detected outlier from a data set and then repeating the test on the remaining, reduced, data set. During each pass of the outlier test, the sample mean, standard deviation, and sample size used in the test statistics are computed using only the data remaining in the set. The process can be continued until there is either an insufficient amount of data remaining (a minimum of 3 values) or when no additional outliers are found. When using MANAGES, the user will be asked how many outliers are to be checked and it will then automatically perform all of the recursive calls and data reductions with the Grubbs or Dixon routine. When done, a report can be generated that will show each outlier marked with a flag indicating the sequential order in which the outliers were identified.

Critical values used in the one-sided Grubbs test are taken directly from those in Grubbs and Beck (1972) for sample sizes smaller than 147 observations. Critical values for sample sizes larger than 147 were generated numerically using a Monte Carlo routine, where each sampling event was simulated 100,000 times. Sample sizes ranging from 148 to 5,000 where used and then their resultant test statistic T_n curve fitted at specific significance levels. By this method, it was possible to match Grubbs results to at least four significant digits for corresponding tabulated values.

Critical values used in the one-sided Dixon outlier test are taken directly from tables given in Dixon (1951), Dixon (1953; page 89), and USEPA (2000; p. A-5, Table A-3). The critical values were then curve fitted for every sample size between 3 and 25 as a function of the significance level. By this method, it was possible to match Dixon's results to at least four significant digits for corresponding tabulated values. Note that the Dixon test assumes the data are either normally or lognormally distributed. Hence, sample sizes can only range between 3 and 25, inclusive. Dixon never developed an outlier test for sample sizes larger than 25.

User Selections:

- One or up to 100 locations: a separate test is performed for each location.
- One or up to 100 parameters: a separate test is performed for each parameter.
- Evaluation date range.
- Confidence $(1-\alpha)$ level: 0.90, 0.95 or 0.99.
- Non-detect processing: multiplier between 0 and 1.
- Data transformation option: none and log (base e).
- Number of outliers: one, two, first 5%, first 10%. Selecting any option other than one causes MANAGES to rerun the test, with outliers from prior tests removed, until either no outliers are detected or the specified number of outliers are detected.

Technical Details

Grubbs Outlier Test – The Grubbs outlier test determines whether there is statistical evidence that an observation does not fit the remaining data (USEPA, 1989; p. 8-11). This significance test looks at either the highest or the lowest observation in normal samples.	
The number of observations taken during a specified scoping period; n	n

Mean of the observed data during the scoping period; $\overline{X}$	$\overline{X} = \frac{1}{n}\sum_{i=1}^{n} X_i$ where X_i is the i-th observation.
Standard deviation of observed data; S_x.	$S_x = \sqrt{\frac{1}{(n-1)}\sum_{i=1}^{n}(X_i - \overline{X})^2}$
Test statistics: T_l & T_n	Sort the data into ascending order, then compute the statistics $T_l = (\overline{X} - X_l)/S_x$ $T_n = (X_n - \overline{X})/S_x$ where X_l is the smallest value of the n observations and X_n is the largest value of the n observations.
One-sided test with a (1-α) confidence level that there is a single extreme outlier within the n observations.	Grubbs single, one-sided test of either an extreme low outlier : X_l *is an outlier if* $T_l \geq T_{cr(1-\alpha,n)}$ or an extreme high outlier: X_n *is an outlier if* $T_n \geq T_{cr(1-\alpha,n)}$. The function $T_{cr(1-\alpha,n)}$ is the critical value, given in Grubbs and Beck (1972; Table 1) and USEPA (1989; p. B-11, Table 8) . Note that the critical value assumes that the mean and standard deviation are computed from the sample being tested.

Dixon Outlier Test – The Dixon outlier test determines whether there is statistical evidence that an extreme observation does not fit the remaining data (USEPA, 2000; p. 4-24 and ASTM D6312, 1998). This significance test looks at both the highest and the

lowest observations in a sample data set. However, the routine will only perform the outlier tests if several conditions are first satisfied. For example, the Dixon outlier algorithm checks the distribution of the sample data for both normality and lognormality using the Shapiro-Wilk W-test. The outlier routine will not proceed with a data set if the W-test fails. In addition, the Dixon outlier test is limited to a minimum of 3 and a maximum sample size n of 25 data values.	
The number of observations taken during a specified scoping period; n	Number of observations, n, where $3 \le n \le 25$.
Sorting the sample data	Sort the data into ascending order, with the minimum data value $X_{(1)}$ first and the maximum data value $X_{(n)}$ last. Use the natural log of the data values if data are lognormally distributed, i.e., $X_{(j)} = \mathrm{Ln}[X_{(j)}]$.
Goodness-of fit tests	After temporarily excluding either the minimum or maximum value of the data set, the Shapiro-Wilk's W-test is used to determine if the remaining $n-1$ values are normally or lognormally distributed. If not, the Dixon outlier test can't be used.
Test statistic, T_s, for the minimum data value	Compute the T_s test statistic for $X_{(1)}$ as an outlier: $T_s = \frac{X_{(2)} - X_{(1)}}{X_{(n)} - X_{(1)}} \quad for \quad 3 \le n \le 7$ $T_s = \frac{X_{(2)} - X_{(1)}}{X_{(n-1)} - X_{(1)}} \quad for \quad 8 \le n \le 10$ $T_s = \frac{X_{(3)} - X_{(1)}}{X_{(n-1)} - X_{(1)}} \quad for \quad 11 \le n \le 13$ $T_s = \frac{X_{(3)} - X_{(1)}}{X_{(n-2)} - X_{(1)}} \quad for \quad 14 \le n \le 25.$
Test statistic, T_s, for the maximum data value	Compute the T_s test statistic for $X_{(n)}$ as an outlier:

	$T_s = \dfrac{X_{(n)} - X_{(n-1)}}{X_{(n)} - X_{(1)}} \quad for \quad 3 \le n \le 7$ $T_s = \dfrac{X_{(n)} - X_{(n-1)}}{X_{(n)} - X_{(2)}} \quad for \quad 8 \le n \le 10$ $T_s = \dfrac{X_{(n)} - X_{(n-2)}}{X_{(n)} - X_{(2)}} \quad for \quad 11 \le n \le 13$ $T_s = \dfrac{X_{(n)} - X_{(n-2)}}{X_{(n)} - X_{(3)}} \quad for \quad 14 \le n \le 25.$
Critical value T_c	USEPA (2000; p. A-5, Table A-3) lists the critical values of the Dixon test as a function of sample size for a one-sided extreme value test at the significance levels α of 0.1, 0.05, and 0.01.
One-sided test with a (1-α) confidence level that there is a single extreme outlier within the n observations.	Dixon's single, one-sided test for statistical evidence of either an extreme low-valued outlier: $X_{(1)}$ *is an outlier if* $T_s \ge T_c$ or an extreme high-valued outlier: $X_{(n)}$ *is an outlier if* $T_s \ge T_c$. The function T_c is the critical value, given in Dixon (1953; page 89) and USEPA (2000; p. A-5, Table A-3). Note that the critical value assumes that the data are either normally or lognormally distributed.

Other Statistical Calculations Used in MANAGES

Sen Estimate of Slope

The Sen estimate of slope is the median of all slopes between all possible unique pairs of individual data points in the time period being analyzed (Gilbert, 1987). The slopes represent the rate of change of the measured parameter, with the y-axis being the parameter value and the x-axis being calendar days. Sen's estimate of slope is a non-parametric estimator of trend. The method is robust, and fairly insensitive to the presence of a small fraction of outliers and non-detect data values. In contrast, linear regression and other least squares estimators of slope are significantly more sensitive, and more likely to give erroneous slope indications, even when only a few outlier values are present.

When data averaging is not activated, the Sen slope is calculated using individual data points and actual sampling dates. When data averaging is activated, multiple data points within each specified season period are reduced to one data point by arithmetic averaging over each of the season periods. These averaged values are then assigned to the day that corresponds to the middle of that season's period.

The approximate lower and upper confidence limits for the Sen slope can also be calculated using normal theory (Gilbert, 1987). It should be noted that confidence limits for the Sen slope are not necessarily symmetrical about the estimated slope since ranked values of slope are used in the calculation.

MANAGES calculates Sen slope in the Sen Slope Overlay Graph, Statistical Summary reports and in the two Mann-Kendall tests performed under the Statistical Evaluation Report.

Sen's Estimate of Slope – two-sided, non-parametric method that calculates the trend of a single data series. It is less sensitive to outliers and non-detect values than linear regression (Gilbert, 1987; p. 217).	
Slope, Q	$= \frac{x_{i'} - x_i}{i' - i}$ where $X_{i'}$ and x_i are data values at times *i'* and *i*, respectively, and where *i'>i*. Typically, i' and i are expressed in units of either days for trend analysis or years for seasonal analysis.
N′	Number of unique data point pairs that can be made for the observations in the data set, for *i'>i*. For n monitoring events, N′ is given as: N′ = n(n-1)/2

Sen's Slope Estimate	Sen's slope estimator = median slope $= Q_{[(N'+1)/2]}$ if N' is odd $= \frac{1}{2}(Q_{[N'/2]} + Q_{[(N'+2)/2]})$ if N' is even where the Q values have first been ranked from smallest to largest.
$Z_{1-\alpha/2}$	Statistic for the cumulative normal distribution (Gilbert, 1987; p. 254) for the two-sided, α significance level.
Variance estimate of the Mann-Kendall S Statistic, VAR(S)	VAR(S) $= \frac{1}{18}\left[n(n-1)(2n+5) - \sum_{p=1}^{g} t_p(t_p-1)(2t_p+5)\right]$ where g is the number of tied groups, t_p is the number of data in the pth group, and n is the number of data values.
C_α	$= Z_{1-\alpha/2}\sqrt{VAR(S)}$
Sen's Slope , a two-sided test at the α significance level	$M_1 = \frac{(N'-C_\alpha)}{2}$ $M_2 = \frac{(N'+C_\alpha)}{2}$ Lower limit of confidence interval is the M_1-th largest slope, and upper limit of confidence interval is the (M_2+1)-th largest of the N′ ordered slope estimates.

Coefficient of Skewness for Normality

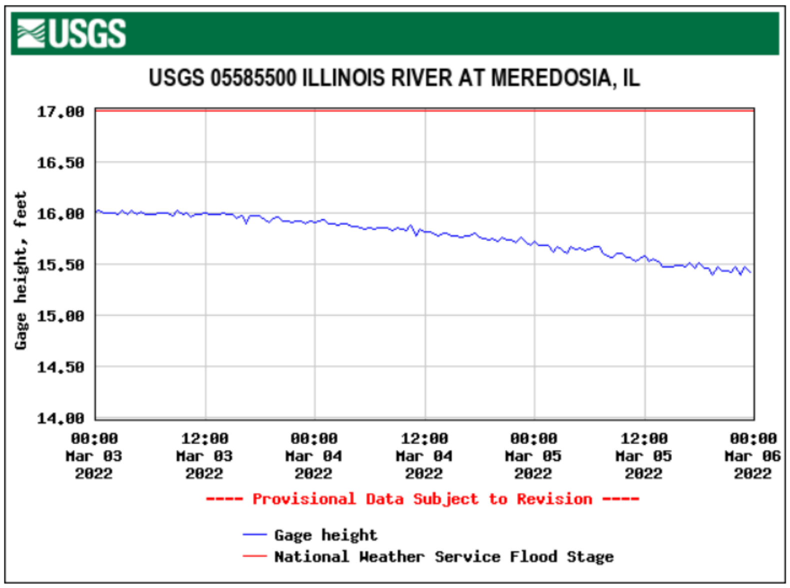
The coefficient of skewness is another measure for data normality (Gilbert, 1987). MANAGES provides the value of the coefficient of skewness in the Statistical Evalueation Report, Statistical Overview. Additional information on data normality is given by Montgomery, et al. (1987).

APPENDIX C
SITE INSPECTION REPORTS

Inspection Form for Closed Ponds at Ameren Facilities

Projcet Name:	Quarterly Ash Pond Cap Inspection	Inspection Date:	03/04/2022
		Temperature:	28 F
Location:	Meredosia Power Plant	Weather:	Mostly cloudy
System Description:	Fly Ash Pond	River Level	433.8
	Bottom Ash Embankment	gage at Meredosia	15.8
			Gage 0' = 418.00' MSL Bottom Ash Pond bottom is at 430.00' MSL
Engineer/Inspectors:	Lisa Meyer and Mike Wagstaff		

Owner Representative: n/a



Overall System Rating: **Acceptable**

System Rating Codes

Acceptable System: Nearly all items or components are rated as GC or NE.

Minimally Acceptable System: One or more items are rated as MM or one or more items are rated as IM or EC and an engineering determination concludes that the IM or EC items would not prevent the system from performing as intended.

Unacceptable System: One or more items are rated as IM or EC and would prevent the system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years.

Condition Codes

EC = Emergency Condition. A serious dam safety condition exists that needs immediate action. Emergency measures implemented as instructed by Supervising Engineer, Dam Safety; i.e. pool draw down, work stoppage, or plant stoppage.

IM = Item needing Immediate Maintenance to restore or ensure its safety or integrity. Remediation should be completed within an appropriate timeframe as determined by the Supervising Engineer, Dam Safety.

MM = Item needing Minor Maintenance and/or repairs within the year. The safety or integrity of the item is not yet imperiled.

OB = Condition requires regular Observation to ensure that the condition does not become worse.

GC = Good Condition.

NE = No Evidence of a problem.

NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Fly Ash Pond Cap - ClosureTurf
Quarterly Site Inspection Checksheet

Date	03/04/2022
Inspector	Lisa Meyer and Mike Wagstaff
Temperature	28 F
Weather	Mostly cloudy

	Item	Condition Code *	Comments
Closure Cap	**Drainage Ditch/ArmorFill**	**GC**	ArmorFill in good condition in ditches. No change in locations/quantity of puddles in ditches.
	Sand on Cap	**GC**	Sand is in good condition. No need to place additional sand or sweep existing sand.
	ClosureTurf	**GC**	No damage or degradation evident.
	Riprap Outlet Flumes	**GC**	Flumes are in good condiiton.
	Other	**--**	
Embankment	**Riprap**	**GC**	Riprap is in good condition.
	Vegetation in riprap	**GC**	Weeds were sprayed on Sept 24, 2021.
	Vegetation at Toe	**GC**	Vegetation that re-emerged after flood-waters receded is not a problem.
	Debris/Logs	**GC**	Minimal debris on embankment and at toe of embankment.
	Erosion	**GC**	No erosion evident at toe of embankments.
	Other	**--**	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
OB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
NE = No Evidence of a problem.
NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Bottom Ash Embankment - ClosureTurf
Quarterly Site Inspection Checksheet

Date	03/04/2022
Inspector	Lisa Meyer and Mike Wagstaff
Temperature	28 F
Weather	Mostly cloudy

	Item	Condition Code *	Comments
Roadway	**Gravel Road**	**GC**	Roadway gravel is compacted and smooth.
	Drainage	**GC**	No drainage problems at this time.
	Other	**GC**	No issues.
Embankment	**Vegetation at Toe**	**GC**	Vegetation at toe has re-emerged after flood-waters receded.
	ClosureTurf	**GC**	Turf is in good condition. Sand on slopes does not require sweeping.
	ArmorFill	**GC**	Polyurethane has been applied and sand is locked in-place. No disintegration of polyurethane material is evident at this time.
	Riprap at Toe	**GC**	Riprap at toe is in good condition. Weeds were sprayed on Sept 24, 2021.
	Riprap Outlet Flumes	**GC**	Flumes are in good condition. Weeds were sprayed on Sept 24, 2021.
	Other	**--**	
Remaining Basin	**Side Slopes**	**GC**	Sedimentation logs are in good condition. Vegetation is established on the slopes.
	Bottom	**GC**	Vegetation is re-emerging after flooding. Some shallow ponding (<3" water) at various locations within the limits of the clean-closed bottom ash pond. Minimal debris (caused by flooding) along slopes of basin.
	Outlet Riprap	**GC**	Riprap is in good condtion. Weeds were sprayed on Sept 24, 2021.
	Toe Riprap	**GC**	Riprap in good condition. Weeds were sprayed on Sept 24, 2021.
	Other	**--**	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
OB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
NE = No Evidence of a problem.
NI = Not Inspected. Reason should be stated in comment

Acceptable:

Fly Ash Pond Cap – outlet 2

Fly Ash Pond Cap – outlet 4

Fly Ash Pond Cap – outlet 5;

Bottom Ash Cap - west side berm view

Fly Ash Pond Cap – outlet 6

Bottom Ash embankment north side by well 9

Bottom Ash embankment penetration by Well 9

Bottom Ash embankment outlet to river

Minor general site deficiencies to address in 2022:

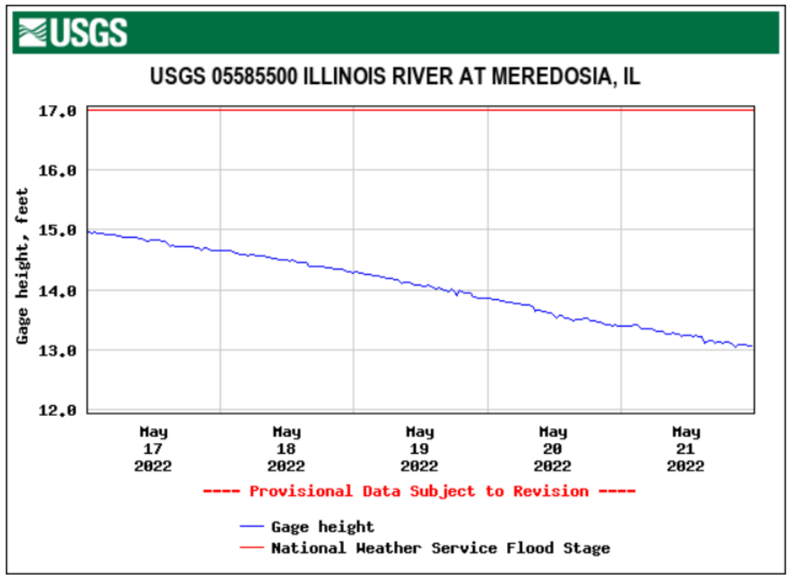
Old East Pond Berm washout

Old East Pond area needs more mowing attention

Minor soil washout under the fence by well 9

Inspection Form for Closed Ponds at Ameren Facilities

Projcet Name:	Quarterly Ash Pond Cap Inspection	Inspection Date:	05/19/2022
		Temperature:	82 F
Location:	Meredosia Power Plant	Weather:	Sunny
System Description:	Fly Ash Pond	River Level	432.1
	Bottom Ash Embankment	gage at Meredosia	14.1
		Gage 0' = 418.00' MSL Bottom Ash Pond bottom is at 430.00' MSL	
Engineer/Inspectors:	Lisa Meyer		
Owner Representative:	n/a		



Overall System Rating: **Acceptable**

System Rating Codes

Acceptable System: Nearly all items or components are rated as GC or NE.

Minimally Acceptable System: One or more items are rated as MM or one or more items are rated as IM or EC and an engineering determination concludes that the IM or EC items would not prevent the system from performing as intended.

Unacceptable System: One or more items are rated as IM or EC and would prevent the system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years.

Condition Codes

EC = Emergency Condition. A serious dam safety condition exists that needs immediate action. Emergency measures implemented as instructed by Supervising Engineer, Dam Safety; i.e. pool draw down, work stoppage, or plant stoppage.

IM = Item needing Immediate Maintenance to restore or ensure its safety or integrity. Remediation should be completed within an appropriate timeframe as determined by the Supervising Engineer, Dam Safety.

MM = Item needing Minor Maintenance and/or repairs within the year. The safety or integrity of the item is not yet imperiled.

OB = Condition requires regular Observation to ensure that the condition does not become worse.

GC = Good Condition.

NE = No Evidence of a problem.

NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Fly Ash Pond Cap - ClosureTurf
Quarterly Site Inspection Checksheet

Date	05/19/2022
Inspector	Lisa Meyer
Temperature	82 F
Weather	Sunny

	Item	Condition Code *	Comments
Closure Cap	**Drainage Ditch/ArmorFill**	**GC**	ArmorFill in good condition in ditches. No change in locations/quantity of puddles in ditches.
	Sand on Cap	**GC**	Sand is in good condition. No need to place additional sand or sweep existing sand.
	ClosureTurf	**GC**	No damage or degradation evident.
	Riprap Outlet Flumes	**GC**	Flumes are in good condiiton.
	Other	**--**	
Embankment	**Riprap**	**GC**	Riprap is in good condition.
	Vegetation in riprap	**GC**	Weeds spraying scheduled for week of May 23, 2022.
	Vegetation at Toe	**GC**	Vegetation that re-emerged after flood-waters receded is not a problem.
	Debris/Logs	**GC**	Minimal debris on embankment and at toe of embankment.
	Erosion	**GC**	No erosion evident at toe of embankments.
	Other	**--**	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
QB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
NE = No Evidence of a problem.
NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Bottom Ash Embankment - ClosureTurf
Quarterly Site Inspection Checksheet

Date	05/19/2022
Inspector	Lisa Meyer
Temperature	82 F
Weather	Sunny

	Item	Condition Code *	Comments
Roadway	Gravel Road	GC	Roadway gravel is compacted and smooth.
	Drainage	GC	No drainage problems at this time.
	Other	GC	No issues.
Embankment	Vegetation at Toe	GC	Vegetation at toe has re-emerged after flood-waters receded.
	ClosureTurf	GC	Turf is in good condition. Sand on slopes does not require sweeping.
	ArmorFill	GC	Polyurethane has been applied and sand is locked in-place. No disintegration of polyurethane material is evident at this time.
	Riprap at Toe	GC	Riprap at toe is in good condition.Weeds spraying scheduled for week of May 23, 2022.
	Riprap Outlet Flumes	GC	Flumes are in good condition. Weeds spraying scheduled for week of May 23, 2022.
	Other	--	
Remaining Basin	Side Slopes	GC	Sedimentation logs are in good condition. Vegetation is established on the slopes.
	Bottom	GC	Vegetation is re-emerging after flooding. Some shallow ponding (<3" water) at various locations within the limits of the clean-closed bottom ash pond. Minimal debris (caused by flooding) along slopes of basin.
	Outlet Riprap	GC	Riprap is in good condtion. Weeds spraying scheduled for week of May 23, 2022.
	Toe Riprap	GC	Riprap in good condition.Weeds spraying scheduled for week of May 23, 2022.
	Other	--	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
QB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
NE = No Evidence of a problem.
NI = Not Inspected. Reason should be stated in comment

Fly Ash Pond Cap – Outlet 1 and embankment (facing west and north)

Fly Ash Pond Cap – outlet 2 and embankment (facing east and west)

Fly Ash Pond Cap – outlet 3 and embankment (facing north and south)

Fly Ash Pond Cap – outlet 4 and embankment (facing north and south)

Fly Ash Pond Cap – outlet 5 and embankment (looking east and west)

Fly Ash Pond Cap – outlet 6 and embankment (facing east and west)

Fly Ash CAP Center (facing north by road, facing east by outlet 1, then facing east by outlet 4)

MONITOR - Fly Ash CAP - Air bubble looking south from outlet 6

Bottom Ash CAP - embankment view (facing north)

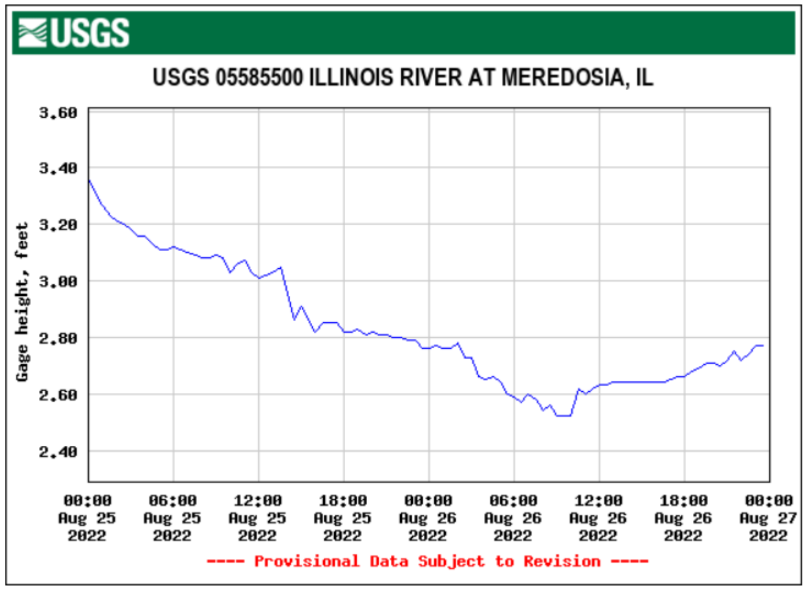
Bottom Ash CAP Penetrations by Well 9, north embankment, river embankment, and letdown)

REPAIRED MAY 2022 - Minor soil washout under the fence by well 9

REPAIRED MAY 2022 - Old East Pond north side embankment washout

Inspection Form for Closed Ponds at Ameren Facilities

Projcet Name:	Quarterly Ash Pond Cap Inspection	Inspection Date:	08/26/2022
		Temperature:	87 F
Location:	Meredosia Power Plant	Weather:	Partly Sunny
System Description:	Fly Ash Pond	River Level	420.6
	Bottom Ash Embankment	gage at Meredosia	2.6
			Gage 0' = 418.00' MSL Bottom Ash Pond bottom is at 430.00' MSL
Engineer/Inspectors:	Lisa Meyer		
Owner Representative:	n/a		



Overall System Rating: **Acceptable**

System Rating Codes

Acceptable System: Nearly all items or components are rated as GC or NE.

Minimally Acceptable System: One or more items are rated as MM or one or more items are rated as IM or EC and an engineering determination concludes that the IM or EC items would not prevent the system from performing as intended.

Unacceptable System: One or more items are rated as IM or EC and would prevent the system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years.

Condition Codes

EC = Emergency Condition. A serious dam safety condition exists that needs immediate action. Emergency measures implemented as instructed by Supervising Engineer, Dam Safety; i.e. pool draw down, work stoppage, or plant stoppage.

IM = Item needing Immediate Maintenance to restore or ensure its safety or integrity. Remediation should be completed within an appropriate timeframe as determined by the Supervising Engineer, Dam Safety.

MM = Item needing Minor Maintenance and/or repairs within the year. The safety or integrity of the item is not yet imperiled.

OB = Condition requires regular Observation to ensure that the condition does not become worse.

GC = Good Condition.

NE = No Evidence of a problem.

NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Fly Ash Pond Cap - ClosureTurf
Quarterly Site Inspection Checksheet

Date	08/26/2022
Inspector	Lisa Meyer
Temperature	87 F
Weather	Partly Sunny

	Item	Condition Code *	Comments
Closure Cap	**Drainage Ditch/ArmorFill**	**GC**	ArmorFill in good condition in ditches. No change in locations/quantity of puddles in ditches.
	Sand on Cap	**GC**	Sand is in good condition. No need to place additional sand or sweep existing sand.
	ClosureTurf	**GC**	No damage or degradation evident.
	Riprap Outlet Flumes	**GC**	Flumes are in good condiiton.
	Other	**--**	
Embankment	**Riprap**	**GC**	Riprap is in good condition.
	Vegetation in riprap	**MM**	Weeds were starting to wilt from last herbicide application which occurred just days before this inspection on Sept 23, 2022. Contractor will reevaluate weed condition in Sept. to determine if an additional application and/or herbicide mixture adjustment is needed.
	Vegetation at Toe	**GC**	Vegetation that re-emerged after flood-waters receded is not a problem.
	Debris/Logs	**GC**	Minimal debris on embankment and at toe of embankment.
	Erosion	**GC**	No erosion evident at toe of embankments.
	Other	**--**	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
QB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
NE = No Evidence of a problem.
NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Bottom Ash Embankment - ClosureTurf
Quarterly Site Inspection Checksheet

Date	08/26/2022
Inspector	Lisa Meyer
Temperature	87 F
Weather	Partly Sunny

	Item	Condition Code *	Comments
Roadway	**Gravel Road**	**GC**	Roadway gravel is compacted and smooth.
	Drainage	**GC**	No drainage problems at this time.
	Other	**GC**	No issues.
Embankment	**Vegetation at Toe**	**GC**	Vegetation at toe has re-emerged after flood-waters receded.
	ClosureTurf	**GC**	Turf is in good condition. Sand on slopes does not require sweeping.
	ArmorFill	**GC**	Polyurethane has been applied and sand is locked in-place. No disintegration of polyurethane material is evident at this time.
	Riprap at Toe	**GC**	Riprap at toe is in good condition.Weeds sprayed on Sept 23, 2022.
	Riprap Outlet Flumes	**GC**	Flumes are in good condition. Weeds sprayed on Sept 23, 2022
	Other	--	
Remaining Basin	**Side Slopes**	**GC**	Sedimentation logs are in good condition. Vegetation is established on the slopes.
	Bottom	**GC**	Vegetation is re-emerging after flooding. Some shallow ponding (<3" water) at various locations within the limits of the clean-closed bottom ash pond. Minimal debris (caused by flooding) along slopes of basin.
	Outlet Riprap	**GC**	Riprap is in good condtion. Weeds sprayed on Sept. 23, 2022.
	Toe Riprap	**GC**	Riprap in good condition.Weeds sprayed Sept 23, 2022.
	Other	--	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
QB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
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Fly Ash Pond Cap – Outlet 1 and embankment (facing east and west)

Fly Ash Pond Cap – Outlet 2 and embankment (facing east and west)

Fly Ash Pond Cap – Outlet 3 and embankment (facing north and south)

Fly Ash Pond Cap – Outlet 4 and embankment (facing north and south)

Fly Ash Pond Cap – Outlet 5 and embankment (looking east and west)

Fly Ash Pond Cap – Outlet 6 and embankment (facing east and west)

Fly Ash CAP Center (@ center facing NE, @ outlet 1 facing north)

RESOLVED - Fly Ash CAP – Air bubble looking south from outlet 6

Bottom Ash CAP - embankment view (facing north)

Bottom Ash CAP – Penetrations, north and south embankments, and river embankment

Old East Pond – East embankment

Old East Pond – North embankment

Old East Pond – West embankment

Inspection Form for Closed Ponds at Ameren Facilities

Projcet Name: Quarterly Ash Pond Cap Inspection

Location: Meredosia Power Plant

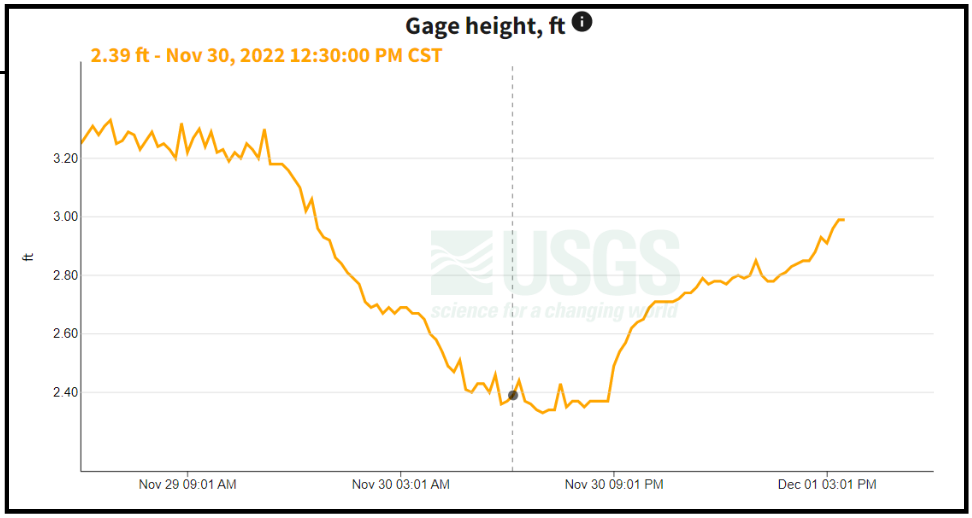
System Description: Fly Ash Pond
Bottom Ash Embankment

Engineer/Inspectors: Lisa Meyer

Inspection Date: 11/30/2022
Temperature: 30 F
Weather: Sunny

River Level 420.39
gage at Meredosia 2.39
Gage 0' = 418.00' MSL
Bottom Ash Pond bottom
is at 430.00' MSL

Owner Representative: n/a



Overall System Rating: **Acceptable**

System Rating Codes

Acceptable System: Nearly all items or components are rated as GC or NE.

Minimally Acceptable System: One or more items are rated as MM or one or more items are rated as IM or EC and an engineering determination concludes that the IM or EC items would not prevent the system from performing as intended.

Unacceptable System: One or more items are rated as IM or EC and would prevent the system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years.

Condition Codes

EC = Emergency Condition. A serious dam safety condition exists that needs immediate action. Emergency measures implemented as instructed by Supervising Engineer, Dam Safety; i.e. pool draw down, work stoppage, or plant stoppage.

IM = Item needing Immediate Maintenance to restore or ensure its safety or integrity. Remediation should be completed within an appropriate timeframe as determined by the Supervising Engineer, Dam Safety.

MM = Item needing Minor Maintenance and/or repairs within the year. The safety or integrity of the item is not yet imperiled.

OB = Condition requires regular Observation to ensure that the condition does not become worse.

GC = Good Condition.

NE = No Evidence of a problem.

NI = Not Inspected. Reason should be stated in comment

Meredosia Power Station
Fly Ash Pond Cap - ClosureTurf
Quarterly Site Inspection Checksheet

Date	11/30/2022
Inspector	Lisa Meyer
Temperature	30 F
Weather	Sunny

	Item	Condition Code *	Comments
Closure Cap	Drainage Ditch/ArmorFill	GC	ArmorFill in good condition in ditches. No change in locations/quantity of puddles in ditches.
	Sand on Cap	GC	Sand is in good condition. No need to place additional sand or sweep existing sand.
	ClosureTurf	OB	About a 3 ft tear in the turf towards the cap peak out from outfall 6. Turf flap from rip completely covers HDPE liner. No damage or degradation evident in the HDPE liner. Monitor.
	Riprap Outlet Flumes	GC	Flumes are in good condiiton.
	Other	--	
Embankment	Riprap	GC	Riprap is in good condition.
	Vegetation in riprap	GC	No overgrowth of weeds or sapplings. Additional herbicide application occurred October 4, 2022.
	Vegetation at Toe	GC	Vegetation that re-emerged after flood-waters receded is not a problem.
	Debris/Logs	GC	Minimal debris on embankment and at toe of embankment.
	Erosion	GC	No erosion evident at toe of embankments.
	Other	--	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
OB = Condition requires regular observation to ensure that the condition does not become worse.
GC = Good Condition. Working properly.
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Meredosia Power Station
Bottom Ash Embankment - ClosureTurf
Quarterly Site Inspection Checksheet

Date	11/30/2022
Inspector	Lisa Meyer
Temperature	30 F
Weather	Sunny

	Item	Condition Code *	Comments
Roadway	**Gravel Road**	**GC**	Roadway gravel is compacted and smooth.
	Drainage	**GC**	No drainage problems at this time.
	Other	**GC**	No issues.
Embankment	**Vegetation at Toe**	**GC**	Vegetation at toe has re-emerged after flood-waters receded.
	ClosureTurf	**GC**	Turf is in good condition. Sand on slopes does not require sweeping.
	ArmorFill	**GC**	Polyurethane has been applied and sand is locked in-place. No disintegration of polyurethane material is evident at this time.
	Riprap at Toe	**GC**	Riprap at toe is in good condition.Weeds sprayed on Sept 23, 2022.
	Riprap Outlet Flumes	**GC**	Flumes are in good condition. Weeds sprayed on Sept 23, 2022
	Other	**--**	
Remaining Basin	**Side Slopes**	**GC**	Sedimentation logs are in good condition. Vegetation is established on the slopes.
	Bottom	**GC**	Vegetation is re-emerging after flooding. Some shallow ponding (<3" water) at various locations within the limits of the clean-closed bottom ash pond. Minimal debris (caused by flooding) along slopes of basin.
	Outlet Riprap	**GC**	Riprap is in good condtion. Weeds sprayed on Sept. 23, 2022.
	Toe Riprap	**GC**	Riprap in good condition.Weeds sprayed Sept 23, 2022.
	Other	**--**	

Condition Codes

IM = Item needing Immediate Maintenance. Remediation should be completed within 1 month.
MM = Item needing Minor Maintenance and/or repairs within the year.
OB = Condition requires regular observation to ensure that the condition does not become worse.
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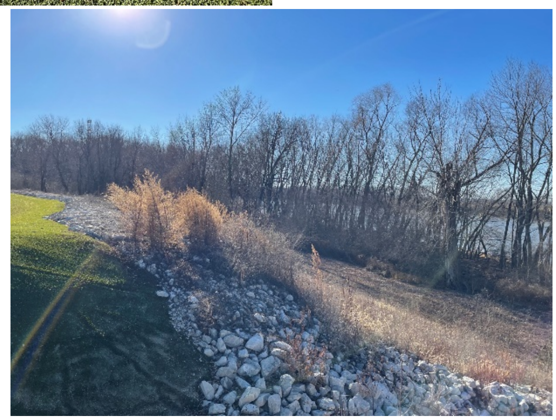
Fly Ash Pond Cap – Outlet 1 and embankment (facing east and west)

Fly Ash Pond Cap – Outlet 2 and embankment (facing east and west)

Fly Ash Pond Cap – Outlet 3 and embankment (facing north and south)

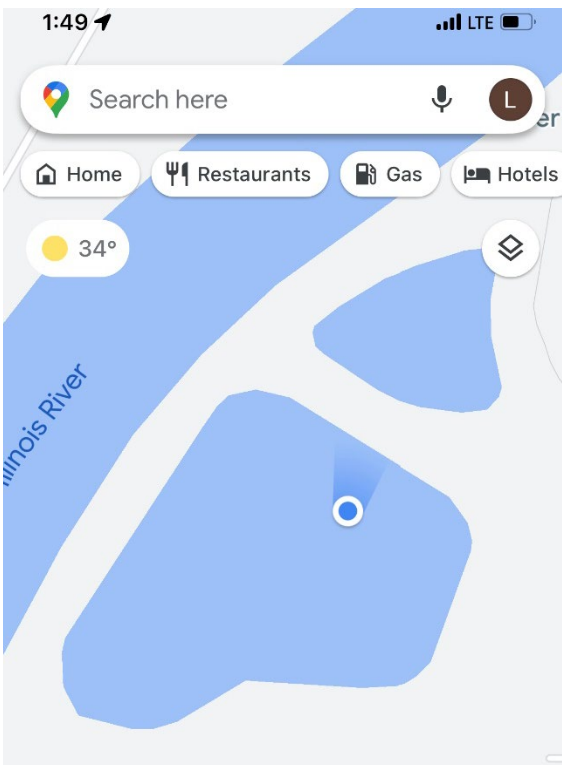


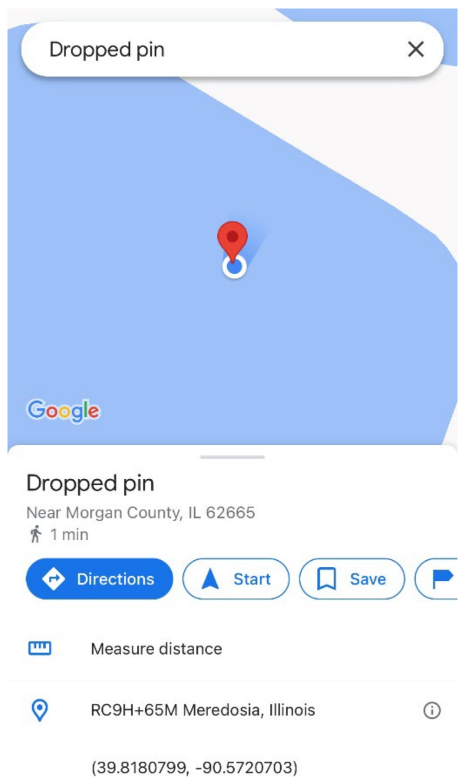
Fly Ash Pond Cap – Outlet 4 and embankment (facing north and south)

Fly Ash Pond Cap – Outlet 5 and embankment (looking east and west)

Fly Ash Pond Cap – Outlet 6 and embankment (facing east and west)

MONITOR – Fly Ash CAP – Turf Rip with approximate coordinates





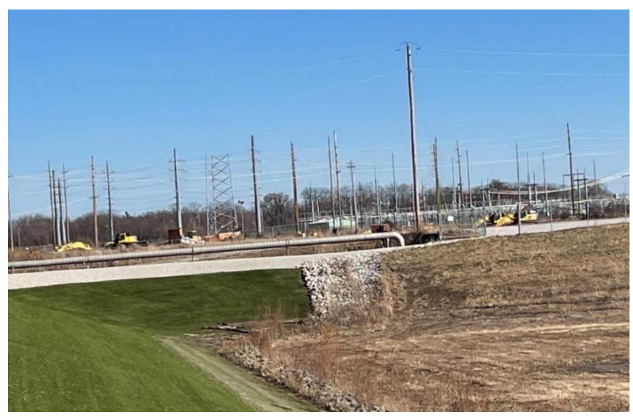
Bottom Ash CAP

North Embankment

South embankment

River embankment

Letdown



Old East Pond

East embankment

West embankment

North embankment

South embankment