



# 2024 Annual Groundwater Monitoring and Corrective Action Report - Former Emery Pond

**Southern Illinois Power Cooperative Marion Power Plant**

Prepared Pursuant to 35 IAC §845.610(e)

Submitted to:

**Southern Illinois Power Cooperative**

11543 Lake of Egypt Road  
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Submitted by:

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## EXECUTIVE SUMMARY

This 2024 CCR Annual Groundwater Monitoring and Corrective Action Report (2024 Annual Report) was prepared on behalf of Southern Illinois Power Cooperative (SIPC) for the Marion Power Plant former Emery Pond located at 11543 Lake of Egypt Road in Marion, Illinois (Site). The former Emery Pond is subject to the Illinois Environmental Protection Agency (IEPA) coal combustion residuals (CCR) groundwater monitoring requirements in 35 Illinois Administrative Code (IAC) Part 845. SIPC completed an IEPA approved closure by removal of CCR prior to July 30, 2021. As the closure was by removal, no post-closure care requirements apply (35 IAC §845.780(a)(2)). Pursuant to the 35 IAC Part 845 CCR Rule, SIPC is required to complete an annual groundwater monitoring and corrective action report by January 31<sup>st</sup> of the following year.

This 2024 Annual Report documents the status of the CCR groundwater monitoring program for the former Emery Pond, summarizes key actions completed, identifies issues encountered, describes actions taken to resolve identified concerns, and proposes key activities for calendar year 2025. In accordance with 35 IAC §845.610(e)(4), the following provides an overview of the status of groundwater monitoring and corrective action for the former Emery Pond:

- The Assessment of Corrective Measures (ACM) was initiated in January 2019 and completed in March 2019 (Hanson, Revised March 30, 2021).
- The remedy was selected for Emery Pond on June 19, 2019 (SIPC, 2019).
- The selected remedy included closure by removal of all CCR from Emery Pond, installation of a perimeter drain, and ongoing groundwater monitoring. Closure by removal of CCR was completed on April 5, 2021, and final inspection by a licensed professional engineer was complete as of May 28, 2021 (SIPC, 2021). Upon completion of these closure by removal actions, all references to and reports for the former CCR unit transitioned to the current nomenclature, former Emery Pond.
- Continued operation of the perimeter drain and quarterly Corrective Action Monitoring were completed in 2021-2024 as part of the groundwater remedy.
- In accordance with the Groundwater Monitoring Plan (GMP) Addendum #1 (Golder, 2021a), the first Corrective Action statistical analysis was completed following the first quarter 2022 monitoring event, the fourth Corrective Action Monitoring event was completed following the completion of the closure by removal.
- The following constituents were detected at statistically significant levels (SSLs) above background in 2024: arsenic in monitoring wells EP-3, EP-4, and EP-7; boron in EP-1, EP-2, EP-4, and EP-7; calcium in EP-1, EP-2, EP-4, and EP-7; chloride in EP-3, EP-4, and EP-7; cobalt in EP-2, EP-3, EP-4, and EP-7; pH in EP-4, EP-6, and EP-7; sulfate in EP-1, EP-2, EP-3, EP-4, EP-5, and EP-7; and total dissolved solids in EP-1, EP-2, EP-3, EP-4, and EP-7.
- The following constituents were detected at SSLs above (or below in the case of pH) groundwater protection standards (GPS) in 2024: boron in monitoring well EP-4; calcium in EP-1, EP-2, EP-4, and EP-7; chloride in EP-4 and EP-7; cobalt in EP-2, EP-3, EP-4, and EP-7; pH in EP-4, EP-6, and EP-7; sulfate in EP-1, EP-2, and EP-4; and total dissolved solids in EP-1, EP-2, and EP-4. Additionally, several constituents were inconsistently detected above the GPS in sample results received in 2024 and, using the statistical methods described in the GMP Addendum #1 (Golder, 2021a), not at SSLs. The following constituents were detected above (or below in the case of pH) the GPS in one or more samples in 2024: arsenic in monitoring well EP-4



and EP-7; beryllium in EP-2; calcium in EP-3; chloride in EP-3; lithium in EP-3; pH in EP-2; and sulfate in EP-7.

- The following statistically significant decreases (SSDs) were identified in 2024: arsenic and thallium in monitoring well EP-4. SSDs were identified for constituents where SSLs were identified in the pre-closure data (March 2017-January 2021) but were not identified in the post-closure data (May 2021-present).

In 2025 SIPC will continue operation of the perimeter drain and quarterly post-closure or Corrective Action Monitoring of groundwater as appropriate and as described in the Site's GMP Addendum #1 (Golder, 2021 a).

## 1.0 INTRODUCTION

On behalf of Southern Illinois Power Cooperative (SIPC), WSP USA Inc. (WSP), prepared this *2024 CCR Annual Groundwater Monitoring and Corrective Action Report* (2024 Annual Report) for the Marion Power Plant's (i.e., Facility's) former Emery Pond, 11543 Lake of Egypt Road, Marion, Williamson County, Illinois (Site, see Figure 1). The former Emery Pond was an on-site settling pond, approximately one (1) acre in size, closed via removal by April 5, 2021. The former Emery Pond is subject to the Illinois Environmental Protection Agency (IEPA) coal combustion residuals (CCR) groundwater monitoring requirements in 35 Illinois Administrative Code (IAC) Part 845. Pursuant to the 35 IAC Part 845 CCR Rule, the Facility is required to complete an annual groundwater monitoring and corrective action report by January 31<sup>st</sup> of the following year.

This 2024 Annual Report provides the monitoring data and presents the relevant data evaluations from the Corrective Action Monitoring (CAM) events that were performed in December 2023, March 2024, June 2024, and September 2024. An additional CAM event was performed in December 2024; the results from this sampling event will be provided in the 2025 Annual Groundwater Monitoring and Corrective Action Report (2025 Annual Report).

In conformance with the applicable requirements of 35 IAC §845.610(e), the 2024 Annual Report:

- Documents the status of the groundwater monitoring and corrective action activities.
- Provides figures showing the former Emery Pond, monitoring well locations, and groundwater flow direction(s).
- Summarizes key actions completed including the status of permit applications.
- Includes CCR Rule groundwater monitoring data obtained.
- Describes any problems encountered during the monitoring activities.
- Discusses actions taken to resolve the problems, if applicable.
- Projects key groundwater monitoring and corrective action activities anticipated for 2025.

### 1.1 Key Actions Completed - 2024

SIPC completed the following key actions relative to 35 IAC Part 845 CCR Rule groundwater monitoring and corrective action regulations at the Site in 2024:

- Preparation of the *2023 CCR Annual Groundwater Monitoring and Corrective Action Report* in January 2024 (2023 Annual Report, 35 IAC §845.610(e)).
- Evaluation and notification in February 2024 of detections above background and Groundwater Protection Standards (GPS) from the eleventh CAM event (35 IAC §845.610(b)(3)(D)).
- Performance of the twelfth CAM event in March 2024 (35 IAC §845.650(b)(1)).
- Evaluation and notification in May 2024 of detections above background and GPS from the twelfth CAM event (35 IAC §845.610(b)(3)(D)).
- Performance of the thirteenth CAM event in June 2024 (35 IAC §845.650(b)(1)).

- Evaluation and notification in August 2024 of detections above background and GPS from the thirteenth CAM event (35 IAC §845.610(b)(3)(D)).
- Performance of the fourteenth CAM event in September 2024 (35 IAC §845.650(b)(1)).
- Evaluation and notification in November 2024 of detections above background and GPS from the fourteenth CAM event (35 IAC §845.610(b)(3)(D)).
- Performance of the fifteenth CAM event in December 2024 (35 IAC §845.650(b)(1)).

## **2.0 STATUS OF PERMIT APPLICATIONS**

In accordance with 35 IAC §845.230(d)(3), SIPC submitted the Initial Operating Permit Application to IEPA on October 31, 2021. The application is currently under review by IEPA. Because SIPC completed an IEPA approved closure by removal for Emery Pond, prior to July 30, 2021, no other permits are required.

## **3.0 SITE INFORMATION**

The following section summarizes Site information including the current monitoring well network and a description of the Site's geology and hydrogeology.

### **3.1 Monitoring Well Network**

The groundwater monitoring system was installed in 2017 (AECOM, 2017). One background monitoring well (EBG) is located approximately 800 feet upgradient of the former Emery Pond and four downgradient monitoring wells (EP-1, EP-2, EP-3, and EP-4) are located along the southern, eastern, and northeastern boundaries of the former Emery Pond. Three additional wells (EP-5, EP-6, and EP-7) were installed in October 2021 between the former Emery Pond and the Lake of Egypt to evaluate groundwater at the limits of the groundwater management zone (GMZ, Figure 2). The monitoring wells are screened at the unlithified/bedrock unit interface which occurs at the Site at 10 to 20 feet below ground surface (ft bgs) dependent on location. Table 1 provides a summary of the well rationale/purpose and date of installation and monitoring well construction details.

### **3.2 Geology and Hydrogeology**

The following section describes the geology and hydrogeology of the Site as it pertains to potential contaminant transport and fate at the Site.

#### **3.2.1 Geology**

The Site is underlain by glacially derived deposits of the Illinoian Stage overlying the Pennsylvanian Age Bedrock. (Hanson, revised March 24, 2021). WSP's interpretation of the Site's geology is based on soil borings (Appendix A) and bedrock geology maps and includes:

- Fill Materials: Where present, the fill materials generally consist of light gray to yellowish brown gravel with some silt and clay, and trace amounts of sand and asphalt from the ground surface to as deep as 14 ft bgs.
- Silt (upper discontinuous silt layer): Yellowish brown silt with little clay and trace very fine-grained sand from the ground surface to as deep as 8 ft bgs.
- Clay: Yellowish brown to black clay with some silt, little sand, and trace gravel from ground surface to approximately 20 ft bgs.

- Silt (lower discontinuous silt layer): Black to yellowish brown silt with little clay and trace very fine-grained sand from approximately 14 ft bgs to 20 ft bgs.
- Bedrock: Yellowish brown, weathered, sandstone and shale. The upper bedrock layer is at least 190 feet thick. The depth to bedrock is approximately 20 ft bgs.

The uppermost water bearing zone monitored by the groundwater monitoring system extends from the clay layer to the shallowest 11 feet of bedrock.

### 3.2.2 Site Hydrogeology

The uppermost water bearing zone is a shallow, hydraulically “perched” zone comprised of fill and residuum (silts and clays) from the weathering of underlying bedrock and is not considered a usable water source. No confining layer was identified. The fill and residuum unit has only 3 to 5 feet of saturated thickness. Because the former Emery Pond was constructed directly on top of the bedrock, groundwater monitoring wells are screened at the unlithified/bedrock unit interface. This zone has a low hydraulic conductivity (<1E-04 centimeters per second [cm/s]) and only a few feet of saturated thickness (5-10 feet; Hanson, 2019b).

### 3.2.3 Groundwater Flow

The 2024 static water levels are summarized in Table 2. Consistent with the requirements of the CCR Rule, the rate and direction of groundwater flow within the uppermost aquifer was determined after each sampling event. The potentiometric surface maps, Figures 3 through 14, were prepared using static water level data obtained monthly in 2023. Groundwater in the vicinity of the former Emery Pond generally flows east/northeast toward the Lake of Egypt. The average groundwater elevation varies between approximately 500 to 520 feet above mean sea level (ft amsl) with an average depth to groundwater of less than 15 ft bgs.

WSP calculated the horizontal hydraulic gradient ( $i$ ) for the unconfined aquifer in the vicinity of the former Emery Pond at 0.0278 as shown below using average groundwater elevation data for EP-5 and EP-7 from 2024.

$$i = h_L / L$$

Where:  $i$  = hydraulic gradient (unitless)  
 $h_L$  = head loss (elevation difference in feet)  
 $L$  = length (horizontal distance in feet)

As presented in the following table, the groundwater flow rate between EP-5 and EP-7 was calculated at approximately 6.6-8.4 feet per year using the following formula:

$$V = ki / \theta$$

Where:  $V$  = Groundwater Velocity (ft/min)  
 $k$  = Hydraulic conductivity (ft/min)  
 $i$  = Hydraulic gradient (unitless)  
 $\theta$  = Assumed effective porosity (unitless)

The hydraulic conductivity used to calculate the groundwater flow rate was the geometric mean of the hydraulic conductivities estimated through analysis of slug test data from wells EP-5 and EP-7 (Hanson, 2019b).

Date	Head Loss (h <sub>L</sub> , feet)	Flow Length (feet)	Hydraulic Gradient (i)	Effective Porosity (∅)	Hydraulic Conductivity (k, feet/min)	Estimated Groundwater Velocity	
						(feet/min)	(feet/year)
January 2024	11.4	470	2.41E-02	0.2	1.04E-04	1.26E-05	6.6
February 2024	11.7	470	2.48E-02	0.2	1.04E-04	1.29E-05	6.8
March 2024	11.8	470	2.50E-02	0.2	1.04E-04	1.30E-05	6.8
April 2024	11.6	470	2.46E-02	0.2	1.04E-04	1.28E-05	6.7
May 2024	13.5	470	2.86E-02	0.2	1.04E-04	1.49E-05	7.8
June 2024	14.5	470	3.07E-02	0.2	1.04E-04	1.60E-05	8.4
July 2024	13.5	470	2.86E-02	0.2	1.04E-04	1.49E-05	7.8
August 2024	13.6	470	2.88E-02	0.2	1.04E-04	1.50E-05	7.9
September 2024	13.7	470	2.90E-02	0.2	1.04E-04	1.51E-05	7.9
October 2024	13.6	470	2.88E-02	0.2	1.04E-04	1.50E-05	7.9
November 2024	14.1	470	2.99E-02	0.2	1.04E-04	1.55E-05	8.2
December 2024	13.7	470	2.90E-02	0.2	1.04E-04	1.51E-05	7.9

Notes: feet/min = feet per minute

h<sub>L</sub> = Head loss in feet

i = hydraulic gradient

k = hydraulic conductivity

∅ = estimated value based on soil and bedrock properties

## 4.0 FIELD ACTIVITIES

Pursuant to the requirements in 35 IAC §845.650(b)(1) four quarterly monitoring events were completed for the former Emery Pond in 2024. A summary of the sampling events is presented below.

Monitoring Event	Sample Parameters	Sample Dates
12 <sup>th</sup> Corrective Action Monitoring Event	35 IAC §845.600(a)(1) Constituents	March 12 - 14, 2024

Monitoring Event	Sample Parameters	Sample Dates
13 <sup>th</sup> Corrective Action Monitoring Event	35 IAC §845.600(a)(1) Constituents	June 3 - 4, 2024
14 <sup>th</sup> Corrective Action Monitoring Event	35 IAC §845.600(a)(1) Constituents	September 4 - 5, 2024
15 <sup>th</sup> Corrective Action Monitoring Event	35 IAC §845.600(a)(1) Constituents	December 2 - 4, 2024

During each of the sampling events, the monitoring wells were sampled in accordance with the procedures presented in the GMP (Hanson, revised March 24, 2021) and the GMP Addendum #1 (Golder, 2021a). Samples were collected by Teklab, Inc. (Teklab) and delivered to the Teklab laboratory in Collinsville, Illinois in secured coolers under chain-of-custody control. Radium samples were then shipped to Summit Environmental Technologies, Inc. in Cuyahoga Falls, Ohio for analysis.

#### 4.1 Problems Encountered and Follow-Up Actions for Resolution

According to the GMP Addendum #1 (Golder, 2021a), groundwater samples are to be collected once a well has achieved a turbidity level below 5 nephelometric turbidity units (NTUs) or when wells were purged for a minimum of two hours and sampled when turbidity appeared to stabilize (e.g., no downward or upward trend over three consecutive readings five minutes apart). During the eleventh CAM event (December 2023), the following groundwater samples were collected with higher than 5 NTU turbidity levels:

- EBG; 6.6 NTUs
- EP-3; 5.6 NTUs
- EP-4; 8.7 NTUs
- EP-6; 5.6 NTUs

During the twelfth CAM event (March 2024), the following groundwater samples were collected with higher than 5 NTU turbidity levels:

- EP-1; 9.2 NTUs
- EP-4; 15 NTUs
- EP-7; 6.5 NTUs

During the thirteenth CAM event (June 2024), the following groundwater samples were collected with higher than 5 NTU turbidity levels:

- EBG; 6.4 NTUs
- EP-1; 5.4 NTUs
- EP-7; 13 NTUs

During the fourteenth CAM event (September 2024), the following groundwater samples were collected with higher than 5 NTU turbidity levels:

- EBG; 60 NTUs
- EP-1; 5.7 NTUs
- EP-6; 11 NTUs

WSP's evaluation of the analytical results from these wells suggests that the elevated turbidity levels had no significant effect on the representativeness of the samples of groundwater quality. During future monitoring events, wells will be purged for a minimum of two hours or five well volumes and professional judgement will be used to assess when the purged water is representative of groundwater to be sampled.

## 5.0 GROUNDWATER MONITORING PROGRAM RESULTS

This section includes a description of the 35 IAC Part 845 CCR Rule monitoring program status, a discussion of the groundwater data, and a summary of the Corrective Actions completed.

### 5.1 Background Monitoring

Per the requirements of 35 IAC §845.650(b)(1), between March 2017 and January 2021 fifteen independent background groundwater samples were collected from each background and downgradient well. The samples were submitted to a contract laboratory in accordance with chain of custody and quality assurance/quality control procedures. For ten of the sample events, samples were submitted for analysis of the constituents listed in 35 IAC §845.600(a), except for pH. In addition, field water quality parameters including pH, specific conductance, temperature, dissolved oxygen, turbidity, and oxidation-reduction potential were measured. For the remaining five sampling events, samples were submitted for analysis of a subset of the constituents listed in 35 IAC §845.600(a) and the field water quality parameters listed above. The sampling dates, number of groundwater samples collected from each background and downgradient well, purpose of sampling, and analytical results are presented in Table 3.

### 5.2 Corrective Action

The Assessment of Corrective Measures (ACM) was completed in March 2019 and a public meeting was held on May 23, 2019, at the Marion Public Library in Marion, Illinois to discuss the results of the ACM. The "Corrective Action and Selected Remedy Plan" (Hanson, revised March 30, 2021), outlines the selected remedy including:

- Closure of the then-operating Emery Pond and adjacent flue-gas desulfurization (FGD) storage area by removal of all CCR.
- Construction of a composite liner system compliant with 35 IAC Part 845 in the footprint of the former Emery Pond to continue storm water management functions.
- Construction of a perimeter drain at the toe of the liner system to protect the liner from external hydrostatic pressure and recover contaminated groundwater.
- Installation of three new monitoring wells, continuing to monitor groundwater for changes resulting from the natural attenuation of contaminants, source removal and the perimeter drain collection of impacted groundwater, and the establishment of a GMZ.

Emery Pond ceased receipt of CCR materials in the fall of 2020. Closure construction activities began in late 2020. Emery Pond, and the adjacent FGD storage area, were dewatered and excavated. The removal and decontamination of Emery Pond was completed April 5, 2021, and the final inspection was completed May 28, 2021, in accordance with the Site's Closure Plan (Hanson, revised April 15, 2021).

### **5.3 Corrective Action Monitoring**

The former Emery Pond is currently in CAM. In accordance with the Site's Closure Plan (Hanson, revised April 15, 2021) and the GMP Addendum #1 (Golder, 2021a), CAM is completed on a quarterly basis. The first two quarterly CAM events were completed in May and August 2021 and the results were provided in the 2021 Annual Groundwater Monitoring and Corrective Action Report (2021 Annual Report, Golder, 2022). The third through sixth CAM sampling events were completed in December 2021, March, May, and September 2022 and the results were provided in the 2022 Annual Groundwater Monitoring and Corrective Action Report (2022 Annual Report, WSP, 2023). The seventh through tenth CAM sampling events were completed in December 2022 and March/May, June, and September 2023 and the results were provided in the 2023 Annual Groundwater Monitoring and Corrective Action Report (2023 Annual Report, WSP, 2024). The eleventh through fifteenth CAM sampling events were completed in December 2023 and March, June, September, and December 2024. The results from the December 2023 and the March, June, and September 2024 sampling events are discussed in Sections 6.1 through 6.5, respectively, and presented in Table 3. The corresponding analytical laboratory reports are provided in Appendix B. The 2024 Data Usability Summary Report is provided in Appendix C. The results from the December 2024 sampling event will be included in the 2025 Annual Report.

## **6.0 STATISTICAL EVALUATION**

The former Emery Pond is currently in CAM. After four quarterly CAM groundwater sampling events were completed, the groundwater sampling results were statistically evaluated to determine statistically significant detections above background, statistically significant levels (SSLs) above applicable GPS, and whether statistically significant decreases (SSDs) have occurred after closure through removal of the former Emery Pond as described in the Site's GMP Addendum #1 (Golder, 2021a).

In accordance with the procedures identified in GMP Addendum #1 (Golder, 2021a), WSP calculated the GPS and the facility background tolerance limits (i.e., background concentrations), including all data collected from the background monitoring well (EBG) prior to the former Emery Pond closure, for each analyte using a tolerance/prediction limit procedure in accordance with 35 IAC §845.640(f)(1)(C). The GPS are the higher of the values provided in 35 IAC §845.600(a) and the background concentration. Calculated facility background concentrations, 35 IAC §845.600(a) groundwater quality standards, and the GPS for the Site are summarized in Table 4. The results from the statistical analysis from the eleventh through fourteenth CAM events are provided in Appendix D.

### **6.1 Eleventh Corrective Action Monitoring Event Statistical Analysis**

The eleventh CAM event (December 2023) data were compared to facility background concentrations and GPS established by WSP in 2021, which are summarized in Table 4. Statistical analyses were completed according to the GMP Addendum #1 (Golder, 2021a). SSLs above background and GPS were identified and are summarized in the embedded tables below. The SSLs above GPS in the former Emery Pond monitoring well network are shown on Figure 15.



Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Arsenic			X	X			X
Boron	X	X		X			X
Calcium	X	X		X			
Chloride			X	X			X
Cobalt		X	X	X			X
pH				X		X	
Sulfate	X	X	X	X	X		X
Total Dissolved Solids	X	X	X	X			

"X" indicates a statistically significant detection above background.

\*pH was identified at decrease relative to the lower limit.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Boron				X			
Calcium	X	X		X			
Chloride				X			X
Cobalt		X	X	X			X
pH				X*		X*	
Sulfate	X	X		X			
Total Dissolved Solids	X	X		X			

"X" indicates a statistically significant detection above the GPS.

\*pH was identified at decrease relative to the lower limit.

The eleventh CAM event (December 2023) data was evaluated for SSDs by identifying constituents where SSLs were identified in the pre-closure (March 2017- January 2021) data but not identified in post-closure (May 2021-present) data. SSDs were identified for arsenic and thallium in EP-4. The former Emery Pond has completed closure by removal of all CCR material and is in Corrective Action Monitoring, therefore, no actions beyond reporting these exceedances in this Annual Report are required.

## 6.2 Twelfth Corrective Action Monitoring Event Statistical Analysis

The twelfth CAM event (March 2024) data were compared to facility background concentrations and GPS established by WSP in 2021. Statistical analyses were completed according to the GMP Addendum #1 (Golder, 2021a). SSLs above background and GPS were identified and are summarized in the embedded tables below. The SSLs above GPS in the former Emery Pond monitoring well network are shown on Figure 16.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Arsenic			X	X			X
Boron	X	X		X			X
Calcium	X	X		X			X
Chloride			X	X			X
Cobalt		X	X	X			X
pH				X		X	
Sulfate	X	X	X	X	X		X
Total Dissolved Solids	X	X	X	X			X

"X" indicates a statistically significant detection above background.

\* pH was identified at decrease relative to the lower limit.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Boron				X			
Calcium	X	X		X			X
Chloride				X			X
Cobalt		X	X	X			X
pH				X*		X*	
Sulfate	X	X		X			
Total Dissolved Solids	X	X		X			

"X" indicates a statistically significant detection above the GPS.

\*pH was identified at a decrease relative to the lower limit.

No new SSDs were identified. The former Emery Pond has completed closure by removal of all CCR material and is in Corrective Action Monitoring, therefore, no actions beyond reporting these exceedances in this Annual Report are required.

### 6.3 Thirteenth Corrective Action Monitoring Event Statistical Analysis

The thirteenth CAM event (June 2024) data were compared to facility background concentrations and GPS established by WSP in 2021. Statistical analyses were completed according to the GMP Addendum #1 (Golder, 2021a). SSLs above background and GPSs were identified and are summarized in the embedded tables below. The SSLs above GPS in the former Emery Pond monitoring well network are shown on Figure 17.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Arsenic			X	X			X
Boron	X	X		X			X
Calcium	X	X		X			X
Chloride			X	X			X
Cobalt		X	X	X			X
pH				X*		X	
Sulfate	X	X	X	X	X		X
Total Dissolved Solids	X	X	X	X			X

"X" indicates a statistically significant detection above background.

\*pH was identified at decrease relative to the lower limit.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Boron				X			
Calcium	X	X		X			X
Chloride				X			X
Cobalt		X	X	X			X
pH				X*		X*	
Sulfate	X	X		X			
Total Dissolved Solids	X	X		X			

"X" indicates a statistically significant detection above the GPS.

\*pH was identified at decrease relative to the lower limit.

No new SSDs were observed from this evaluation. The former Emery Pond has completed closure by removal of all CCR material and is in Corrective Action Monitoring, therefore, no actions beyond reporting these exceedances in this Annual Report are required.

### 6.4 Fourteenth Corrective Action Monitoring Event Statistical Analysis

The fourteenth CAM event (September 2024) data were compared to facility background concentrations and GPS established by WSP in 2021. Statistical analyses were completed according to the GMP Addendum #1 (Golder, 2021a). SSLs above background and GPSs were identified and are summarized in the embedded tables below. The SSLs above GPS in the former Emery Pond monitoring well network are shown on Figure 18.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Arsenic			X	X			X
Boron	X	X		X			X
Calcium	X	X		X			X
Chloride			X	X			X
Cobalt		X	X	X			X
pH				X*		X*	X*
Sulfate	X	X	X	X	X		X
Total Dissolved Solids	X	X	X	X			X

"X" indicates a statistically significant detection above background.

\*pH was identified at decrease relative to the lower limit.

Constituent	EP-1	EP-2	EP-3	EP-4	EP-5	EP-6	EP-7
Boron				X			
Calcium	X	X		X			X
Chloride				X			X
Cobalt		X	X	X			X
pH				X*		X*	X*
Sulfate	X	X		X			
Total Dissolved Solids	X	X		X			

"X" indicates a statistically significant detection above the GPS.

\*pH was identified at decrease relative to the lower limit.

No new SSDs were identified. The former Emery Pond has completed closure by removal of all CCR material and is in Corrective Action Monitoring, therefore, no actions beyond reporting these exceedances in this Annual Report are required.

### 6.5 Fifteenth Corrective Action Monitoring Event Statistical Evaluation

The fifteenth CAM event was completed in December 2024. The laboratory results were not received during calendar year 2024. The data for the fifteenth CAM event will be evaluated in accordance with the CCR Rule timeframes and reported in the 2025 Annual Report.

## 7.0 KEY ACTIVITIES PROJECTED FOR 2025

During calendar year 2025, SIPC anticipates conducting the following key CCR Rule groundwater monitoring activities for the former Emery Pond:

- Prepare and submit the appropriate notifications according to the CCR Rule.
- Continue quarterly CAM per CCR Rule requirements.
- Inspect and maintain the monitoring system including wells, pumps, and equipment.

## 8.0 REFERENCES

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WSP USA Inc, formerly Golder Associates (2023), "2022 Annual Groundwater Monitoring and Corrective Action Report, Marion Power Plant – Emery Pond, Southern Illinois Power Cooperative", January 31, 2023.

WSP USA Inc. (2024), "2023 Annual Groundwater Monitoring and Corrective Action Report, Marion Power Plant – Emery Pond, Southern Illinois Power Cooperative", January 31, 2024.

## TABLES

**Table 1: Monitoring Well Construction Details**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative Marion Power Plant**  
**Marion, Illinois**

CCR Unit	Monitoring Well Type	Monitoring Well ID	Installation Date	Ground Surface Elevation (ft-msl)	Total Borehole Depth (ft)	Top of Casing Elevation (ft-msl)	Sounded Well Depth (ft-btoc)	Well Material	Screen Length (ft)	Screen Depth		Screen Elevation		
										Top (ft-btoc)	Bottom (ft-btoc)	Top (ft-msl)	Middle (ft-msl)	Bottom (ft-msl)
Former Emery Pond	Background	EBG	2/8/2017	521.74	25.00	524.87	28.13	2" Sch 40 PVC	10	18.13	28.13	506.74	501.74	496.74
	Downgradient	EP-1	2/7/2017	517.07	31.00	519.72	33.65	2" Sch 40 PVC	10	23.65	33.65	496.07	491.07	486.07
	Downgradient	EP-2	2/7/2017	511.15	15.00	513.79	17.64	2" Sch 40 PVC	10	7.64	17.64	506.15	501.15	496.15
	Downgradient	EP-3	2/8/2017	516.24	26.50	518.95	29.21	2" Sch 40 PVC	10	19.21	29.21	499.74	494.74	489.74
	Downgradient	EP-4	2/8/2017	517.07	18.50	519.74	21.17	2" Sch 40 PVC	10	11.17	21.17	508.57	503.57	498.57
	GMZ Boundary	EP-5	10/5/2021	524.64	16.32	527.59	16.32	2" Sch 40 PVC	4.5	11.30	15.79	516.29	514.05	511.80
	GMZ Boundary	EP-6	10/4/2021	502.08	13.62	505.11	13.62	2" Sch 40 PVC	4.5	8.59	13.12	496.52	494.26	491.99
	GMZ Boundary	EP-7	10/4/2021	512.49	18.50	515.44	18.50	2" Sch 40 PVC	9.6	9.36	18.00	506.08	501.26	497.44

**Notes:**

ft-msl = Feet above mean sea level  
 ft-btoc = Feet below top of casing  
 2" Sch 40 PVC = Two-inch diameter well, constructed of schedule 40 polyvinyl chloride materials  
 AECOM, 2018, 2017 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2018.  
 GMZ = Groundwater Management Zone

Prepared by: DPJ  
 Checked by: SLG  
 Reviewed by: MAH



**Table 2: 2024 Groundwater Water Levels**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative Marion Power Plant**  
**Marion, Illinois**

Monitoring Well ID	Total Depth (feet)	Sounded Well Depth (feet)	Elevation of Top of Casing (feet msl)	1/8/2024		2/19/2024		3/18/2024		4/19/2024		5/20/2024		6/17/2024	
				DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)
EBG	25.00	27.20	524.87	9.6	515.27	9.3	515.57	9.6	515.27	8.5	516.37	8.9	515.97	8.1	516.77
EP-1	31.00	30.30	519.72	6.4	513.32	6.1	513.62	6.1	513.62	6.7	513.02	7.5	512.22	6.4	513.32
EP-2	15.00	17.05	513.79	6.8	506.99	6.9	506.89	6.8	506.99	7.2	506.59	6.8	506.99	5.4	508.39
EP-3	26.50	29.00	518.95	15.9	503.05	15.4	503.55	16.5	502.45	15.4	503.55	16.1	502.85	14.8	504.15
EP-4	18.50	20.90	519.74	8.5	511.24	8.8	510.94	8.3	511.44	8.5	511.24	7.9	511.84	6.4	513.34
EP-5	16.32	18.84	527.59	15.2	512.39	14.6	512.99	14.6	512.99	14.9	512.69	12.5	515.09	11.4	516.19
EP-6	13.62	16.24	505.11	4.1	501.01	4.6	500.51	3.5	501.61	4.2	500.91	4.7	500.41	2.4	502.71
EP-7	18.50	22.00	515.44	14.4	501.04	14.1	501.34	14.2	501.24	14.3	501.14	13.8	501.64	13.7	501.74

Notes:

- 1.) MSL = mean sea level.
- 2.) DTW = Depth to Water

**Table 2: 2024 Groundwater Water Levels**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative Marion Power**  
**Marion, Illinois**

Monitoring Well ID	Total Depth (feet)	Sounded Well Depth (feet)	Elevation of Top of Casing (feet msl)	7/15/2024		8/20/2024		9/9/2024		10/14/2024		11/13/2024		12/12/2024	
				DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)	DTW (feet)	Elevation (feet msl)
EBG	25.00	27.20	524.87	8.2	516.67	7.9	516.97	8.2	516.67	8.1	516.77	8.6	516.27	8.8	516.07
EP-1	31.00	30.30	519.72	6.7	513.02	6.3	513.42	7.1	512.62	7.3	512.42	7.7	512.02	7.8	511.92
EP-2	15.00	17.05	513.79	5.3	508.49	5.3	508.49	4.9	508.89	5.2	508.59	5.5	508.29	5.9	507.89
EP-3	26.50	29.00	518.95	14.6	504.35	14.1	504.85	13.9	505.05	14.3	504.65	14.9	504.05	15.4	503.55
EP-4	18.50	20.90	519.74	6.2	513.54	5.9	513.84	5.4	514.34	5.8	513.94	6.0	513.74	6.3	513.44
EP-5	16.32	18.84	527.59	12.1	515.49	11.5	516.09	11.6	515.99	12.1	515.49	12.9	514.69	13.6	513.99
EP-6	13.62	16.24	505.11	2.9	502.21	2.4	502.71	2.8	502.31	3.3	501.81	4.9	500.21	5.0	500.11
EP-7	18.50	22.00	515.44	13.4	502.04	12.9	502.54	13.1	502.34	13.5	501.94	14.8	500.64	15.1	500.34

Notes:  
 1.) MSL = mean sea level.  
 2.) DTW = Depth to Water

Created by: NMD  
 Checked by: GRD  
 Approved by:

**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative Marion Power Plant**  
**Marion, Illinois**

Well ID	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	
Sample Date	3/23/2017	4/3/2017	5/25/2017	6/22/2017	6/29/2017	7/24/2017	8/1/2017	8/31/2017	3/22/2018	8/27/2018	1/11/2019	6/27/2019	1/30/2020	6/22/2020	1/21/2021	5/31/2021	
Sample Purpose	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Corrective Action Monitoring	
ANALYTE	Unit																
Boron	mg/L	0.12	0.079	0.1	0.071	0.073	0.079	0.074	0.056	0.033	0.035	0.041	<0.08	<0.5	0.022	<0.5	<0.009
Calcium	mg/L	23	10	30	23	32	37	35	35	14	15	13	15.2	12	13	15	13.3
Chloride	mg/L	55	11	84	68	79	27	86	82	12	16	12	18	7.2	12	13	22
Fluoride	mg/L	<0.029	<0.029	<0.029	<0.029	<0.029	0.64	<0.029	<0.029	0.53	0.55	0.5	<0.06	0.56	<0.5	0.46	0.6
pH	SU	6.5	6.8	6.41	6.45	6.53	6.59	6.66	6.26	6.35	6.57	6.85	6.21	6.54	6.5	6.57	6.61
Sulfate	mg/L	64	54	42	57	50	61	45	44	63	72	75	77	87	81	78	85
Total Dissolved Solids	mg/L	480	400	440	470	280	420	380	470	300	360	370	470	280	500	320	344
Antimony	mg/L	0.00057	0.00085 J	<0.0026	0.00069 J	0.0014 J	<0.0026	0.00022 J	<0.0026		<0.0016		<0.0016		<0.00052		<0.0010
Arsenic	mg/L	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014		<0.002		<0.002		0.0011		<0.0010
Barium	mg/L	0.13	0.029	0.17	0.049	0.086	0.19	0.18	0.16		0.091		<0.00011		0.068		0.0505
Beryllium	mg/L	0.00033 J	<0.0002	<0.00055	<0.0002	<0.0002	<0.00055	<0.0002	<0.00055		<0.00015	0.00038 J	<0.00015		<0.00011		<0.0010
Cadmium	mg/L	<0.0001	<0.00075	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		<0.0015		<0.000018		<0.00002		<0.0010
Chromium	mg/L	0.0062	<0.0016	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031		<0.0031	<0.0026	<0.00014		0.0042		<0.0015
Cobalt	mg/L	0.008	0.00016 J	0.014	0.00015 J	0.0014 J	0.0093	0.0038 J	0.0073		<0.00063	0.0038	<0.00063		0.0017		<0.0001
Lead	mg/L	<0.0008	<0.0013	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0042	<0.00016		<0.0033		<0.0010
Lithium	mg/L	0.046 J	0.0074 J	<0.0042	0.028 J	0.059 J	<0.0042	0.082 J	<0.0042		<0.0042		<0.04		<0.0042		0.0207
Mercury	mg/L		<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		<0.000093		<0.0001		<0.00019		<0.00020
Molybdenum	mg/L	0.0034 J	0.0043 J	<0.000095	0.0017 J	0.0016 J	<0.00095	0.0024 J	<0.00095		<0.00014		<0.00028		<0.000019		0.0145
Radium 226	pCi/L	0.878	<0.223	0.805	<0.262	<0.245	0.43	0.28	0.77		0.933		0.703		0.468		
Radium 228	pCi/L	1.06	<0.496	0.555	<0.0695	<0.371	0.98	1.24	2.22		0.447		0.911		0.514		
Radium, 226/228 Combined	pCi/L	1.938	<0.496	1.36	<0.262	<0.371	1.41	1.52	2.99		1.38		1.61		0.983		
Selenium	mg/L	0.0019 J	<0.0005	<0.0028	0.0036 J	0.0019 J	<0.0028	0.0028 J	0.007		<0.00033	0.00079 J	<0.00033		<0.00056		<0.0010
Thallium	mg/L	<0.0007	<0.004	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081		<0.0081	<0.01	<0.00015		<0.004		<0.0020
Turbidity	NTU																9.95



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EBG	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	
Sample Date	8/30/2021	12/21/2021	3/7/2022	5/24/2022	9/6/2022	12/19/2022	3/21/2023	6/7/2023	9/18/2023	12/11/2023	3/12/2024	6/3/2024	9/4/2024	3/23/2017	4/3/2017	5/25/2017	6/22/2017	6/29/2017	7/24/2017	
Sample Purpose	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Background	Background	Background	Background	Background	Background	
ANALYTE	Unit																			
Boron	mg/L	0.010 J	0.013 J	0.0225	0.019 J	0.012 J	0.014 J	0.011 J	<0.0200	0.016 J	0.0097 J	0.013 J	0.011 J	<0.0200	0.13	0.21	0.28	0.26	0.32	0.21
Calcium	mg/L	12.1	11.6	11.9	13.1	10.9	10.4	12	12.1	12.4	9.72	13.6 B	13.8	11.1	220	280	310	310	310	270
Chloride	mg/L	17	12	15	18	10	9	12	12	11	8	16	18	9.59	54	54	48	50	50	51
Fluoride	mg/L	0.58	0.67	0.58	0.52	0.61	0.68	0.58	0.57	0.63	0.69	0.55	0.44	0.52	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
pH	SU	6.58	6.95	6.78	6.55	6.6	Lab Error	6.83	6.4	6.69	6.68	6.71	6.59	6.71	6.94	6.89	6.55	6.52	6.64	6.57
Sulfate	mg/L	83	84	83	90	101	96	85	82	81	91	85	90 S	81.6	820	910	850	850	440	540
Total Dissolved Solids	mg/L	340	308	428	344	322	340 H	314	336	326	322	348	320	352	2000	2300	2300	2300	2200	2200
Antimony	mg/L	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0008 J	0.00043 J	<0.0002	<0.0026	0.00057 J	0.00095 J	<0.0026
Arsenic	mg/L	<0.0010	<0.0200	<0.0010	0.0005 J	<0.0010	<0.0010	0.0004 J	0.0004 J	<0.0010	<0.0010	0.0004 J	<0.0010	0.0005 J	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
Barium	mg/L	0.0469	0.0475	0.054	0.0506	0.0491	0.0434	0.0508	0.0441	0.0426	0.0433	0.0560	0.0499	0.0495	0.045	0.04	0.041	0.032	0.033	0.029
Beryllium	mg/L	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0006 J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0002	<0.0002	<0.00055	<0.0002	<0.0002	<0.00055
Cadmium	mg/L	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0001	0.006	<0.0015	<0.0015	<0.0015	<0.0015
Chromium	mg/L	0.0011 J	<0.0300	0.0009 J	0.0007 J	<0.0015	<0.0015	0.0016	<0.0015	0.0008 J	<0.0015	0.0019	<0.0015	0.0012 J	<0.0001	<0.0016	<0.0031	<0.0031	<0.0031	<0.0031
Cobalt	mg/L	0.0003 J	<0.0200	0.0005 J	0.0003 J	0.0002 J	0.0002 J	0.003 J	0.0008 J	<0.0010	0.0002 J	0.0002 J	<0.0010	0.0004 J	0.0017 J	0.00079 J	<0.0018	0.00081 J	0.00057 J	<0.00018
Lead	mg/L	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0008	<0.0013	<0.0026	<0.0026	<0.0026	<0.0026
Lithium	mg/L	0.0164	<0.0600	0.0162	0.0166	0.0141	0.0166	0.0191	0.0241	0.0185	0.0141	0.0265	0.0203	0.0200	0.024 J	0.028 J	<0.0042	0.032 J	0.029 J	<0.1
Mercury	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00007 J	<0.00020	<0.00020	<0.00020	<0.00020		<0.00019	<0.00019	<0.00019	<0.00019	<0.00019
Molybdenum	mg/L	0.0014 J	<0.0300	0.0014 J	0.0021	0.0012 J	0.002	0.0019	0.0016	0.0052	0.0010 J	0.0016	0.0013 J	0.0015 J	0.0028 J	0.0016 J	<0.000095	0.00077 J	0.0018 J	<0.00095
Radium 226	pCi/L	<0.21	0.104 J	0.215	<0.0495	<0.0129	<0.0672	0.180 J	0.444	<-0.04	<0.06	<0.04	<0.06	<0.04	0.603	0.341	0.37	0.313	<0.139	0.16
Radium 228	pCi/L	1.02	<0.194	1.18	2.63	0.315 J	<-0.0292	0.968	1.09 J	0.12	3.21	0.69 J	<0.53	0.72 J	<0.0552	0.55	<0.609	0.496	<0.0387	<0.27
Radium, 226/228 Combined	pCi/L	<1.23	<0.297	1.4	2.68	<0.328	<0.0672	1.15	1.53	0.12	3.27	<0.73	<0.59	<0.76	0.603	0.891	0.37	0.809	<0.139	0.16
Selenium	mg/L	<0.0010	<0.0200	0.0007 J	0.0007 J	0.0006 J	<0.0010	0.0009 J	0.0011	0.0012	<0.0010	0.0006 J	0.0007 J	<0.0010	0.0012 J	0.0014 J	<0.0028	0.005 J	0.0025 J	<0.0028
Thallium	mg/L	0.0054	<0.0400	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0012 J	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0007	<0.004	<0.0081	<0.01	<0.010	<0.010
Turbidity	NTU	28.65	13	16	15	3.5	Lab Error	<1.0	1.8	11	6.6	4.8	6.4	60						



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	EP-1	
Sample Date	8/1/2017	8/31/2017	3/22/2018	8/27/2018	1/11/2019	6/27/2019	1/30/2020	6/22/2020	1/21/2021	5/31/2021	8/30/2021	12/21/2021	3/7/2022	5/24/2022	9/6/2022	12/20/2022	3/15/2023	5/24/2023	6/6/2023	9/18/2023	
Sample Purpose	Background	Background	Background	Background	Background	Background	Background	Background	Background	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring-Resample	Corrective Action Monitoring	Corrective Action Monitoring	
ANALYTE	Unit																				
Boron	mg/L	0.23	0.17	0.38	0.92	0.75	1.12	1.1	0.92	1	0.816	0.931	1.07	0.914	0.991	1.16	1.06	0.968 O	0.986	0.945	1.29
Calcium	mg/L	250	240	330	410	410	444	540	470	460	478	483	506	474	508	476	523	523 O	505	499	548
Chloride	mg/L	48	48	60	63	70	55	52	34	39	44	48	46	44	38	35	38	32 O	30	30	28
Fluoride	mg/L	<0.029	<0.029	<0.25	<0.06	<0.06	<0.06	<0.06	<0.5	<0.2	0.22	0.19	0.24	0.19	0.18	0.21	0.24	0.2 O	0.22	0.21	0.29
pH	SU	6.82	6.79	6.25	6.36	6.33	6.2	7.39	6.15	6.29	6.18	6.12	6.37	6.19	6.2	6.21	Lab Error	6.31 O	6.19	6.31	6.47
Sulfate	mg/L	520	440	510	1000	1600	1500	1700	1400	1400	1450	1640	1480	1600	1470	1570	1580	1490 O	1520	1430	1430
Total Dissolved Solids	mg/L	2100	2100	2400	2700	2800	550	2700	2700	2500	2500	2520	2510	2650	2530	2600	2460 H	2350 O	2010	2370	2460
Antimony	mg/L	<0.0002	<0.0026		<0.0016		<0.0016		<0.0026		<0.0010	0.0005 J	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	<0.0010 O	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	<0.0014	<0.0014		<0.002		<0.002		<0.0014		<0.0010	0.0005 J	<0.0200	0.0004 J	<0.0010	0.0004 J	<0.0010	0.0008 JO	0.0007 J	0.0009 J	0.006 J
Barium	mg/L	0.028	0.026		0.023		<0.00011		0.019		0.0216	0.02	0.0193	0.0171	0.017	0.017	0.0158	0.0197 O	0.0163	0.0154	0.0196
Beryllium	mg/L	<0.0002	<0.00055		<0.00015	<0.00055	<0.00015		<0.00055		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	0.0006 J	<0.0010 O	<0.0010	<0.0010	<0.0010
Cadmium	mg/L	<0.0015	<0.0015		<0.0015		<0.000018		<0.00002		<0.0010	<0.0010	<0.0200	0.0002 J	<0.0010	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010	<0.0015
Chromium	mg/L	<0.0031	<0.0031		<0.0031	<0.0026	<0.00014		<0.0011		<0.0020	0.0019	<0.0300	<0.0015	<0.0015	<0.0015	0.0026	<0.0015 O	<0.0015	<0.0015	<0.0015
Cobalt	mg/L	0.00074 J	<0.00018		<0.00063	0.00056 J	<0.00063		<0.00018		0.0012	0.0010 J	<0.0200	<0.0010	0.0002 J	<0.0010	0.0004 J	0.0002 JO	0.0003 J	<0.0010	0.003 J
Lead	mg/L	<0.0026	<0.0026		<0.0026	<0.0042	<0.00016		<0.0033		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.024 J	<0.0042		<0.0042		<0.04		<0.0042		0.0141	0.0127	<0.0600	0.012	0.0103	0.012	0.0139	0.0133 O	0.0111	0.0136	0.0099
Mercury	mg/L	<0.00019	<0.0002		<0.000093		<0.0001		<0.00019		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020 O	<0.00020	<0.00020	0.00007 J
Molybdenum	mg/L	0.0019 J	<0.00095		<0.00014		<0.00028		<0.000095		<0.0015	<0.0015	<0.0300	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015 O	<0.0015	<0.0015	<0.0015
Radium 226	pCi/L	0.38	0.24		0.453		0.619		0.42			<0.04	0.501	0.260 J	<0.0628	0.265 J	0.144 J	0.227 J		<0.0926	0.13
Radium 228	pCi/L	1.04	1.15		0.992		0.0905		0.405			1.78	<0.255	0.439 J	0.888	<0.449	0.326 J	0.726		<0.248	1.28
Radium, 226/228 Combined	pCi/L	1.42	1.39		1.445		0.71		0.825			<1.82	0.756 J	0.699	0.95	<0.265	0.470	0.953		<0.0926	1.41
Selenium	mg/L	0.0011 J	<0.0028		<0.00033	<0.0028	<0.00033		<0.0028		0.0015	0.0014	<0.0200	0.0017	0.0026	0.0015	0.0021	0.0051 O	0.0073	0.0082	0.0025
Thallium	mg/L	<0.010	<0.010		<0.0081	<0.01	<0.00015		<0.004		<0.0020	0.0042	<0.0400	<0.0200	<0.0020	<0.0020	<0.0020	<0.0020 O	<0.0020	<0.0020	<0.0020
Turbidity	NTU										49.8	22.65	13	5	<1.0	<1.0	Lab Error	<1.0 O	1.6	<1.0	6.1

**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID	EP-1	EP-1	EP-1	EP-1	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	
Sample Date	12/11/2023	3/13/2024	6/3/2024	9/4/2024	3/23/2017	4/3/2017	5/25/2017	6/22/2017	6/29/2017	7/24/2017	8/1/2017	8/31/2017	3/22/2018	8/27/2018	1/11/2019	6/27/2019	1/30/2020	6/22/2020	1/21/2021	
Sample Purpose	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	
ANALYTE	Unit																			
Boron	mg/L	1.17	1.05	1.19	1.50	0.22	0.19	0.2	0.23	0.29	0.26	0.31	0.23	0.24	0.2	0.37	0.274	0.56	0.47	0.49 J
Calcium	mg/L	477	548	554	579	190	170	200	200	470	200	190	180	230	190	280	236	430	360	340
Chloride	mg/L	33	40	49	49.0	42	39	36	37	36	36	36	36	30	35	25	29	13	19	28
Fluoride	mg/L	0.27	0.23	0.20	0.10 J	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.25	<0.06	<0.06	<0.06	<0.06	<0.5	0.28
pH	SU	6.08	6.32	6.17	6.21	6.18	6.39	6.31	6.1	5.75	5.86	5.88	6.33	6.27	6.28	6.62	6.18	6.46	5.81	6.37
Sulfate	mg/L	1430	1530	1540	1590	860	660	780	780	470	430	770	340	420	740	1100	1100	1100	1200	1300
Total Dissolved Solids	mg/L	2510	2540	2480	2580	1800	1800	1900	1800	1900	1800	1800	1800	1700	1800	1900	400	1900	2200	2300
Antimony	mg/L	0.0005 J	<0.0010	<0.0010	0.0005 J	0.00029 J	<0.0002	<0.0026	0.0004 J	0.00073 J	<0.0026	<0.0002	<0.0026		<0.0016		<0.0016		<0.00052	
Arsenic	mg/L	0.0006 J	0.0007 J	<0.0010	0.0004 J	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014		<0.002		<0.002		<0.00027	
Barium	mg/L	0.0194	0.0146	0.0169	0.0228	0.039	0.035	0.038	0.03	0.029	0.025	0.025	0.025		0.018		<0.00011		0.019	
Beryllium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0002	<0.0002	<0.00055	<0.0002	<0.0002	<0.00055	<0.0002	<0.00055		<0.00015	<0.00055	<0.0016		<0.00011	
Cadmium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0001	<0.00075	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		<0.0015		<0.000018		<0.00002	
Chromium	mg/L	0.0015 J	<0.0015	<0.0015	0.0010 J	<0.0001	<0.0016	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031			<0.0026	<0.00014		<0.0011	
Cobalt	mg/L	0.0005 J	0.0002 J	<0.0010	0.0004 J	0.052	0.029	0.023	0.016	0.0087	<0.00018	0.00086 J	<0.00018		<0.00063	0.0007 J	<0.00063		<0.000037	
Lead	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0008	<0.0013	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026		<0.0026	<0.0042	<0.00016		<0.0033	
Lithium	mg/L	0.0143	0.0142	0.0090	0.0145	0.018 J	0.015 J	<0.0042	0.020 J	0.025 J	<0.1	0.021 J	<0.0042		<0.0042		<0.04		<0.0042	
Mercury	mg/L	<0.00020	<0.00020	<0.00020	<0.00020		<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		<0.000093		<0.0001		<0.00019	
Molybdenum	mg/L	0.0008 J	<0.0015	<0.0015	<0.0015	0.0015 J	0.0017 J	<0.000095	0.0003 J	0.00055 J	<0.00095	0.00082 J	<0.00095		<0.00014		<0.00028		<0.000019	
Radium 226	pCi/L	<0.04	<0.01	<0.17	<0.04	<0.187	0.338	<0.177	0.197	1.9	0.08	0.14	0.08		0		<0.149		0.0467	
Radium 228	pCi/L	1.9	1.43	0.75 J	<0.45	0.853	<0.0622	<0.126	<0.127	<0.458	0.4	1.35	0.64		0.443		0.553		0.176	
Radium, 226/228 Combined	pCi/L	<1.94	<1.44	<0.92	<0.45	0.853	0.338	<0.177	0.197	1.9	0.48	1.49	0.72		0.443		0.553		0.222	
Selenium	mg/L	0.0024	0.0047	0.0033	0.0007 J	0.0038 J	0.0027 J	<0.0028	0.0074	0.0061	0.0054	0.0046 J	<0.0028		<0.00033	0.0055	<0.00033		0.0031	
Thallium	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0007	<0.004	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081		<0.0081	<0.01	<0.00015		<0.004	
Turbidity	NTU	4.6	9.2	5.4	5.7															



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID		EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-2	EP-3	EP-3	EP-3	EP-3	EP-3	
	Sample Date	5/31/2021	8/30/2021	12/22/2021	3/7/2022	5/24/2022	9/7/2022	12/20/2022	3/21/2023	5/24/2023	6/6/2023	9/20/2023	12/12/2023	3/13/2024	6/4/2024	9/4/2024	3/23/2017	4/3/2017	5/25/2017	6/22/2017	6/29/2017
	Sample Purpose	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Background	Background	Background	Background	Background
ANALYTE	Unit																				
Boron	mg/L	0.544	0.499	0.33	0.508	0.48	0.408	0.276	0.359 O	0.418	0.372		0.274	0.418	0.754	0.403	0.11	0.089	0.081	0.057	0.085
Calcium	mg/L	372	363	299	406	347	349	306	328 O	318	340		293	473	381	514	34	29	45	93	30
Chloride	mg/L	29	34	43	30	33	44	52	29 O	31	35		62	64	40	67.6	100	120	140	220	66
Fluoride	mg/L	0.62	0.4	0.36	0.69	0.92	0.47	0.39	1.47 O	1.7	1.57		0.33	0.94	1.19	0.20 J	<0.029	<0.029	<0.029	<0.029	<0.029
pH	SU	5.74	5.91	6.32	5.86	5.97	6.19	Lab Error	5.96 O	5.48	6.3		6.23	6.06	5.71	6.20	5.99	5.96	6.03	6.08	6.01
Sulfate	mg/L	1370	1590	1250	1630	1700	1760	1350	1750 O	1690	1700		1260	2050	1540	2420	120	180	190	300	73
Total Dissolved Solids	mg/L	2120	2370	2090	2480	2460	2580	2220 H	2480 O	2380	2570		2270	3250	2260	3890	680	820	1400	560	570
Antimony	mg/L	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	<0.0050 O	<0.0040	<0.0040		<0.0010	<0.0010	0.0005 J	<0.0010	0.00022 J	<0.0002	<0.0026	0.00026 J	0.00091 J
Arsenic	mg/L	<0.0010	0.0005 J	<0.0200	<0.0010	0.0013	0.0016	0.0006 J	<0.0010 O	0.0009 J	0.0023		0.0029	0.0007 J	0.0014	0.0033	<0.0014	0.0088	0.0076	0.0061	<0.0014
Barium	mg/L	0.0146	0.0198	0.0168	0.0151	0.0208	0.0205	0.017	0.022 O	0.0185	0.0189		0.0213	0.0154	0.0189	0.0255	0.072	0.059	0.059	0.061	0.065
Beryllium	mg/L	0.0011	0.0003 J	<0.0200	0.0019	0.0056	<0.0010	<0.0010	0.0056 O	0.0082	0.0092		<0.0010	0.0021	0.0049	<0.0010	<0.0002	<0.0002	<0.00055	<0.0002	<0.0002
Cadmium	mg/L	0.0015	0.0016	<0.0200	0.0014	0.0003 J	0.0003 J	0.0002 J	0.0009 JO	0.0002 J	<0.0010		0.0009 J	0.0014	0.0003 J	<0.0010	<0.0001	<0.00075	<0.0015	<0.0015	<0.0015
Chromium	mg/L	<0.0015	<0.0015	<0.0300	<0.0015	<0.0015	<0.0015	<0.0015	0.0018 O	0.0009 J	<0.0015		0.0009 J	0.0017	0.0025	0.0201	<0.0001	<0.0016	<0.0031	<0.0031	<0.0031
Cobalt	mg/L	0.0017	0.0052	<0.0200	0.0159	0.211	0.0325	0.0218	0.115 O	0.273	0.301		0.0467	0.0530	0.162	0.0477	0.11	0.12	0.091	0.037	0.11
Lead	mg/L	<0.0010	0.0007 J	<0.0200	<0.0010	<0.0020	<0.0010	<0.0010	<0.0050 O	<0.0040	<0.0040		<0.0010	<0.0010	<0.0010	<0.0010	<0.0008	0.0056	<0.0026	<0.0026	<0.0026
Lithium	mg/L	0.0206	0.0148	<0.0600	0.0196	0.0381	0.0123	0.0129	0.0446 O	0.0518	0.0725		0.0153	0.0291	0.0311	0.0197	<0.003	0.0095 J	<0.0042	0.12	0.012 J
Mercury	mg/L	<0.00020	<0.00020	0.00006 J	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020 O	<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020		<0.00019	<0.00019	<0.00019	<0.00019
Molybdenum	mg/L	<0.0015	<0.0015	<0.0300	<0.0015	<0.0015	0.0009 J	0.0011 J	<0.0015 O	<0.0015	<0.0015		0.0017	<0.0015	0.0009 J	0.0007 J	0.00037 J	0.00045 J	<0.000095	<0.0002	<0.0002
Radium 226	pCi/L		<0.02	0.228 J	<0.0315	<0.0325	0.365	<0.0328	<0.0164		0.182 J		<0.23	<0.21	<0.25	<0.37	1.64	0.715	1	0.366	0.317
Radium 228	pCi/L		2.51	<0.145	<0.426 J	0.933	0.899	<0.0435	2.0		<0.162		1.85	0.84 J	0.96 J	1.44	<0.438	1.92	<0.633	0.42	<0.397
Radium, 226/228 Combined	pCi/L		2.53	0.374 J	<0.458 J	0.965	1.26	<0.0763	2.0		<0.343		2.08	<1.05	<1.21	<1.81	1.64	2.635	1	0.786	0.317
Selenium	mg/L	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	0.0008 J	<0.0010 O	<0.0010	<0.0010		<0.0010	0.0028	<0.0010	<0.0010	0.013	0.011	0.016	0.028	0.013
Thallium	mg/L	<0.0020	0.009	<0.0400	<0.0020	<0.0040	<0.0020	<0.0020	<0.0100 O	<0.0080	<0.0080		<0.0020	<0.0020	<0.0020	<0.0020	<0.0007	<0.004	<0.0081	<0.0081	<0.0081
Turbidity	NTU	7.34	9.98	1.5	4.9	4.3	<1.0	Lab Error	4.48 O	<1.0	8.2		5.0	3.0	3.2	4.8					

DRY



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	
Sample Date	7/24/2017	8/1/2017	8/31/2017	3/22/2018	8/27/2018	1/11/2019	6/27/2019	1/30/2020	6/22/2020	1/21/2021	5/31/2021	8/30/2021	12/22/2021	3/8/2022	5/25/2022	9/7/2022	12/20/2022	3/21/2023	5/24/2023	
Sample Purpose	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	
ANALYTE	Unit																			
Boron	mg/L	0.083	0.09	0.09	0.078	0.082	0.033	<0.08	<0.5	0.024	<0.25	0.0556	0.075	0.0501	0.0702	0.067	0.0708	0.063	0.0615 O	0.069
Calcium	mg/L	32	34	33	34	38	94	76.3	40	80	66	40.6	35.5	58.9	36.3	40.1	36.2	42.8	35.7 O	39.1
Chloride	mg/L	110	120	110	110	140	240	150	140	330	230	127	129	183	145	157	147	157	127 O	152
Fluoride	mg/L	<0.029	<0.029	<0.029	<0.25	<0.06	<0.06	<3	<0.06	<0.5	0.35	0.22	0.17	0.51	0.2	0.19	0.21	0.23	0.16 O	0.19
pH	SU	5.96	6.02	6.13	6.1	6.1	6.11	5.98	6.31	6.01	6.24	6.13	6.07	6.41	6.17	6.04	6.05	Lab Error	6.33 O	6.11
Sulfate	mg/L	130	140	110	110	150	340	160	190	410	300	148	114	178	153	160	151	170	83 O	141
Total Dissolved Solids	mg/L	720	630	1000	700	690	750	580	750	960	1500	692	672	812	762	728	670	650 H	535 O	735
Antimony	mg/L	<0.0026	<0.0002	<0.0026		<0.0016		<0.0016		<0.00052		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	0.0019 O	<0.0010
Arsenic	mg/L	0.0093	0.0062	0.0069		<0.002		0.0057 J	0.0067	0.0059	<0.05	0.0075	0.0076	<0.0200	0.0068	0.0075	0.007	0.0083	0.0173 O	0.0063
Barium	mg/L	0.064	0.057	0.058		0.064		<0.00011		0.041		0.0819	0.101	0.084	0.0851	0.0846	0.0855	0.0836	0.168 O	0.0949
Beryllium	mg/L	<0.00055	<0.0002	<0.00055		<0.00015	0.00033 J	<0.00015		<0.00011		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010 O	<0.0010
Cadmium	mg/L	<0.0015	<0.0015	<0.0015		<0.0015		<0.000018		<0.00002		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	0.0004 JO	<0.0010
Chromium	mg/L	<0.0031	<0.0031	<0.0031		<0.0031	<0.0026	<0.00014		<0.0011		<0.0015	<0.0015	<0.0300	0.0015 J	<0.0015	<0.0015	<0.0015	0.0067 O	<0.0015
Cobalt	mg/L	0.12	0.1	0.11		0.088	0.044	0.032	0.087	0.047	0.031	0.0912	0.0882	0.0472	0.0947	0.121	0.104	0.0846	0.0795 O	0.0939
Lead	mg/L	<0.0026	<0.0026	<0.0026		<0.0026	<0.0042	<0.00016		<0.0033		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	0.0028 O	<0.0010
Lithium	mg/L	<0.1	0.028 J	<0.0042		<0.0042		0.119		0.12		0.0314	0.0169	0.0736	0.0267	0.0321	0.027	0.0425	0.0053 O	0.0317
Mercury	mg/L	<0.00019	<0.00019	<0.0002		<0.000093		<0.0001		<0.00019		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00018 JO	<0.00020
Molybdenum	mg/L	<0.00095	0.00047 J	<0.00095		<0.00014		<0.00028		<0.000019		<0.0015	<0.0015	<0.0300	<0.0015	<0.0015	<0.0015	<0.0015	0.0007 J	0.0014 JO
Radium 226	pCi/L	0.19	0.43	0.41		0.679		0.0839		0.513		<0.27	0.196 J	0.365	0.132 J	0.141 J	0.551	0.606		
Radium 228	pCi/L	0.77	2.42	0.77		0.717		0.477		0.304		<0.5	0.768	0.765	1.47	<0.0	1.04	1.25		
Radium, 226/228 Combined	pCi/L	0.96	2.88	1.18		1.396		0.561		0.817		<0.77	0.964	1.13	1.6	<0.141	1.59	1.86		
Selenium	mg/L	0.016	0.012	0.022		<0.00033	<0.0028	<0.00033		<0.00056		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010 O	<0.0010
Thallium	mg/L	<0.0081	<0.0081	<0.0081		<0.0081	<0.01	<0.00015		<0.004		<0.0020	0.0019 J	<0.0400	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020 O	<0.0020
Turbidity	NTU											9.96	6.84	4.2	4.9	1.7	0.42	Lab Error	114.1 O	<1.0





**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID	EP-3	EP-3	EP-3	EP-3	EP-3	EP-3	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	
Sample Date	6/6/2023	9/20/2023	12/12/2023	3/14/2024	6/4/2024	9/5/2024	3/23/2017	4/3/2017	5/25/2017	6/22/2017	6/29/2017	7/24/2017	8/1/2017	8/31/2017	3/22/2018	8/27/2018	1/11/2019	6/27/2019	1/30/2020	
Sample Purpose	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	
ANALYTE	Unit																			
Boron	mg/L	0.0586	0.0611	0.0724	0.0676	0.0437	0.0587	14	23	14	11	13	11	14	11	13	11	15	11.5	11
Calcium	mg/L	36.1	52.6	43.4	35.4 S	67.6	42.5 S	190	170	170	150	190	160	150	150	200	150	140	159	170
Chloride	mg/L	141	144	148	136	231	151	460	290	380	430	250	180	210	210	200	310	420	440	370
Fluoride	mg/L	0.19	0.25	0.22	0.19	0.35	0.10 J	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.25	<0.5	<0.06	<0.06	<0.06
pH	SU	6.05	6.26	6.08	6.18	6.17	6.04	5.51	5.88	5.77	5.8	5.81	5.8	5.8	5.85	6.04	5.85	6.07	5.86	5.94
Sulfate	mg/L	129	158	128	105	280	123	620	530	660	730	410	290	330	340	320	520	750	710	630
Total Dissolved Solids	mg/L	735	770	685	650	1170	815	2300	2300	2400	2000	2100	2300	2200	2300	2100	1900	2000	130	2000
Antimony	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	0.00028 J	<0.0002	<0.0026	0.00033 J	0.00051 J	<0.0026	<0.0002	<0.0026		<0.0016		<0.0016	
Arsenic	mg/L	0.009	0.0073	0.0116	0.0085	0.0071	0.0079	0.035	0.039	0.037	0.053	0.044	0.044	0.035	0.049		<0.002		0.026 J	0.019
Barium	mg/L	0.0973	0.0772	0.0825	0.0970	0.0603	0.0873	0.035	0.026	0.028	0.029	0.037	0.026	0.031	0.023		0.023		<0.00011	
Beryllium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0002	<0.0002	<0.00055	<0.0002	<0.0002	<0.00055	<0.0002	<0.00055			<0.00055	<0.00015	
Cadmium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0001	0.0052	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		<0.0015		<0.000018	
Chromium	mg/L	0.0011 J	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0001	<0.0016	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031	<0.0031		0.011	<0.0026	<0.00014	
Cobalt	mg/L	0.124	0.0841	0.120	0.0888	0.0835	0.0802	0.39	0.41	0.41	0.44	0.34	0.41	0.42	0.38		0.31	0.41	0.28	0.26
Lead	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.009	0.013	0.011	0.017	<0.0026	0.011	0.012	0.012		0.015	<0.0042	<0.00016	
Lithium	mg/L	0.0311	0.0694	0.0555	0.0196	0.107	0.0382	0.0044 J	0.0062 J	<0.0042	0.0047 J	0.0063 J	<0.1	0.0053 J	<0.0042		<0.0042		<0.04	
Mercury	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0002		<0.000093		<0.0001	
Molybdenum	mg/L	<0.0015	<0.0015	0.0008 J	<0.0015	0.0008 J	0.0013 J	0.00092 J	0.0011 J	<0.000095	<0.0002	0.00058 J	<0.00095	0.0010 J	<0.00095		<0.00014		<0.00028	
Radium 226	pCi/L	0.302	<0.12	<0.12	<0.4	<0.22	<0.1	1.1	1.17	<0.0457	0.18	<0.219	0.3	0.15	0.33		0.262		0.77	
Radium 228	pCi/L	0.704 J	0.76 J	1.71	<0.27	0.72 J	1.38	<0.442	<0.353	0.864	0.897	<0.490	0.44	0.96	2.14		0.79		0.929	
Radium, 226/228 Combined	pCi/L	1.01 J	0.76 J	<1.83	<0.67	<0.94	<1.48	1.1	1.17	0.864	1.077	<0.490	0.74	1.11	2.47		1.052		1.7	
Selenium	mg/L	0.0008 J	0.0007 J	0.0008 J	0.0009 J	<0.0010	0.0007 J	0.13	0.12	0.13	0.2	0.13	0.13	0.11	0.16		0.021	<0.0028	<0.00033	
Thallium	mg/L	0.0018 J	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0007	0.065	0.092	0.094	0.058	<0.0081	0.075	0.075		0.14	0.18	<0.00015	
Turbidity	NTU	1.9	8.9	5.6	3.1	4.6	3.5													



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-4	EP-5	EP-5	EP-5
Sample Date	6/22/2020	1/21/2021	5/31/2021	8/30/2021	12/22/2021	3/8/2022	5/25/2022	9/7/2022	12/20/2022	3/21/2023	5/24/2023	6/7/2023	9/21/2023	12/12/2023	3/14/2024	6/4/2024	9/5/2024	12/21/2021	3/7/2022	5/24/2022	
Sample Purpose	Background	Background	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring-Resample	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring
ANALYTE	Unit																				
Boron	mg/L	9.9	10	11.9	11.8	11.6	11.1	11.8	11.8	10.7	9.68 O	10.6	11.6	10.5	11.2	9.42	10.2	10.8	0.0855	0.038	0.0254
Calcium	mg/L	150	140	179	162	161	171	188	147	165	171 O	184	182	147	157	176	208	153	25.4	22.5	21
Chloride	mg/L	380	390	484	446	477	456	460	478	489	435 O	467	472	448	447	457	459	490	4	3	3
Fluoride	mg/L	<0.5	<0.2	0.1	0.09 J	0.09 J	0.12	0.12	0.10 J	0.12	0.14 O	0.17	0.15	0.11	0.11	0.16	0.18	<0.50	0.48	0.4	0.38
pH	SU	5.79	5.91	5.79	5.7	6.05	5.94	5.88	5.7	Lab Error	6.12 O	5.94	5.76	5.93	5.83	6.07	5.99	5.80	7.07	6.73	6.55
Sulfate	mg/L	610	580	670	565	567	623	531	673	499	516 O	517	492	525	442	465	517	484	119	141	132
Total Dissolved Solids	mg/L	2500	1900	1860 R	1750	1450	1740	1730	1640	1640 H	1520 O	1840	1690	1700	1510	1600	1750	1810	294	326	322
Antimony	mg/L	<0.00052		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	<0.0010 O	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0007 J	<0.0200	<0.0010	<0.0010
Arsenic	mg/L	0.014	<0.05	0.0075	0.0073	<0.0200	0.0053	0.0071	0.0068	0.0068	0.103 O	0.0134	0.0126	0.0089	0.0083	0.0135	0.0412	0.0122	<0.0200	0.0004 J	<0.0010
Barium	mg/L	0.027		0.0248	0.027	0.0255	0.0313	0.0329	0.0236	0.0295	0.046 O	0.0395	0.0348	0.0239	0.0335	0.0355	0.0451	0.0305	0.0478	0.0513	0.0529
Beryllium	mg/L	<0.00055		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	0.0047	0.0003 JO	<0.0010	0.0006 J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010
Cadmium	mg/L	<0.00002		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010
Chromium	mg/L	<0.0011		<0.0015	<0.0015	<0.0300	0.002	<0.0015	<0.0015	0.0014 J	0.0026 O	<0.0015	<0.0015	<0.0015	0.0383	0.0019	0.0046	0.0008 J	<0.0300	0.0008 J	<0.0015
Cobalt	mg/L	0.33	0.32	0.287	0.326	0.298	0.200	0.205	0.471	0.258	0.134 O	0.137	0.217	0.267	0.345	0.126	0.0833	0.217	<0.0200	0.0005 J	<0.0010
Lead	mg/L	0.018	<0.025	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	0.0019 O	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010
Lithium	mg/L	<0.0042		<0.0015	0.0023 J	<0.0600	0.0025 J	0.0025 J	0.0021 J	0.0032	0.0034 O	0.0034	0.0032	0.0026 J	0.0031	0.0025 J	0.0033	0.0026 J	<0.0600	0.0027 J	0.0023 J
Mercury	mg/L	<0.00019		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00017 JO	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum	mg/L	<0.000019		<0.0015	<0.0015	<0.030	<0.0015	<0.0015	<0.0015	<0.0015	0.0014 JO	<0.0015	<0.0015	<0.0015	0.0007 J	0.0010 J	0.0006 J	0.0008 J	<0.0300	0.003	0.0027
Radium 226	pCi/L	0.163		<0.11	0.170 J	0.234	0.144 J	0.276	0.828	0.264 J			<0.048	<0.19	<0.31	<0.19	<0.12	<0.14	0.564	0.157 J	0.232 J
Radium 228	pCi/L	0.41		<0.14	1.21	0.658	1.25	1.22	0.328 J	1.14			0.564 J	<0.57	1.44	0.95 J	0.81 J	<0.4	<0.125	0.474 J	<0.287
Radium, 226/228 Combined	pCi/L	0.573		<0.25	1.38	0.893	1.39	1.49	1.16	1.4			0.612 J	<0.76	<1.75	<1.14	<0.93	<0.54	0.564 J	0.63	0.519 J
Selenium	mg/L	0.0012		<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	0.0006 J	<0.0010	<0.0010 O	<0.0010	0.0006 J	<0.0010	0.0007 J	0.0007 J	<0.0010	0.0007 J	<0.0200	0.0017	0.0015
Thallium	mg/L	<0.004		<0.0020	0.0012 J	<0.0400	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020 O	<0.0020	0.0015 J	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0400	0.0031	<0.0020
Turbidity	NTU			19.22	9.75	10	5	1.5	<1.0	Lab Error	239.84 O	5.6	3.7	7.5	8.7	15	4.8	3.7	4.9	0.6	<1.0



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID		EP-5	EP-5	EP-5	EP-5	EP-5	EP-5	EP-5	EP-5	EP-5	EP-5	EP-6	EP-6	EP-6	EP-6	EP-6	EP-6	EP-6	EP-6		
	Sample Date	9/6/2022	12/20/2022	3/15/2023	5/24/2023	6/7/2023	9/20/2023	12/11/2023	3/13/2024	6/3/2024	9/4/2024	12/22/2021	3/8/2022	5/24/2022	9/6/2022	12/20/2022	3/15/2023	6/6/2023	9/19/2023	12/11/2023	
	Sample Purpose	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring-Resample	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	
ANALYTE	Unit																				
Boron	mg/L	0.0222	0.0258	0.0205 O	0.012 J	0.014 J		0.014 J	<0.0200	0.013 J	0.012 J	0.0252	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Calcium	mg/L	16.7	17.5	18.8 O	16.6	16.3		13.5	14.6	17.8 S	15.9	4.24	1.92	1.65	1.86	1.69	1.62	1.49	1.26	1.43	
Chloride	mg/L	3 J	3 J	3 JO	3 J	3 J		3 J	3 J	3 J	2.6 J	25	23	24	23	23	20	22	20	21	
Fluoride	mg/L	0.38	0.51	0.4 O	0.44	0.41		0.45	0.54	0.35	0.29 J	0.06 J	0.06 J	0.06 J	0.07 J	0.06 J	0.06 J	0.07 J	0.06 J	0.07 J	
pH	SU	6.44	Lab Error	6.95 O	6.46	6.48		6.66	6.67	6.48	6.49	5.28	5.1	5.07	5.09	Lab Error	5.15	5.07	5.04	4.80	
Sulfate	mg/L	114	116	125 O	113	128		104	105	125	99.3	48	67	63	64	56	66	65	53	56	
Total Dissolved Solids	mg/L	282	282 H	262 O	296	286		264	268	252	274	192	254	238	216	206 H	222	250	212	222	
Antimony	mg/L	<0.0010	<0.0010 B	<0.0010 O	<0.0010	<0.0010		0.0006 J	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	<0.0010	<0.0010	<0.0010	<0.0010	
Arsenic	mg/L	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Barium	mg/L	0.0506	0.0422	0.0533 O	0.0514	0.0482		0.0434	0.0405	0.0551	0.0527	0.043	0.0345	0.034	0.0366	0.0475	0.0422	0.035	0.0307	0.0340	
Beryllium	mg/L	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010		<0.0010	<0.0010	<0.0010	0.0004 J	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0003 J	0.0003 J	<0.0010	
Cadmium	mg/L	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Chromium	mg/L	<0.0015	0.0014 J	0.0008 JO	0.002	<0.0015		0.0040	0.0013 J	0.0011 J	0.0015 J	<0.0300	0.0013 J	0.0008 J	<0.0015	0.0009 J	0.0008 J	0.0016	0.0015	0.0027	
Cobalt	mg/L	<0.0010	0.0002 J	<0.0010 O	0.0002 J	<0.0010		0.0008 J	<0.0010	<0.0010	0.0003 J	0.0040 J	0.0017	0.0007 J	0.0018	0.0068	0.0036	0.0031	0.008 J	0.0020	
Lead	mg/L	<0.0010	<0.0010	<0.0010 O	<0.0010	<0.0010		0.0006 J	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Lithium	mg/L	0.0023 J	0.0026 J	0.0029 JO	0.0027 J	0.0026 J		0.0029 J	0.0025 J	0.0031	0.0045	<0.0600	0.0113	0.011	0.0094	0.0066	0.0107	0.0182	0.0139	0.0101	
Mercury	mg/L	<0.00020	<0.00020	<0.00020 O	<0.00020	<0.00020		<0.00020	<0.00020	<0.00020	<0.00020	0.00010 J	<0.00020	<0.00020	<0.00020	0.00013 J	0.00009 J	<0.00020	0.00008 J	<0.00020	
Molybdenum	mg/L	0.0017	0.0028	0.0017 O	0.0013 J	0.0013 J		0.0022	0.0011 J	0.0009 J	0.0011 J	<0.0300	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	
Radium 226	pCi/L	0.214 J	0.458	0.153 J		0.443		<0.48	<0.16	<0.12	<0.09	<0.0641	0.123 J	0.112 J	0.0891 J	<0.137	.124 J	0.174 J	<0.07	<0.01	
Radium 228	pCi/L	<-0.235	<-0.281	0.58		<0.154		1.88	0.82 J	<-1.46	<0.62	0.297 J	1.01	<0.183	0.702	<0	<-0.413	0.419 J	<0.17	<0.49	
Radium, 226/228 Combined	pCi/L	<0.214	0.458 J	0.733		0.597		2.36	<0.98	<0.12	<0.71	0.362 J	1.13	<0.295	0.791	<0.137	<0.124	0.593 J	<0.24	<0.5	
Selenium	mg/L	0.0012	0.0007 J	0.0007 JO	<0.0010	0.0007 J		0.0008 J	<0.0010	0.0007 J	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Thallium	mg/L	<0.0020	<0.0020	<0.0020 O	<0.0020	<0.0020		<0.0020	<0.0020	<0.0020	<0.0020	<0.0400	<0.0200	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Turbidity	NTU	<1.0	Lab Error	<1.0 O	<1.0	<1.0		5.0	4.3	4.7	2.4	7.5	4.0	3.3	<1.0	Lab Error	<1.0	2.2	9.3	4.5	



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative M**  
**Marion, Illinois**

Well ID		EP-6	EP-6	EP-6	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7	EP-7
	Sample Date	3/14/2024	6/4/2024	9/4/2024	12/22/2021	3/8/2022	5/25/2022	9/7/2022	12/20/2022	3/21/2023	5/24/2023	6/6/2023	9/19/2023	12/12/2023	3/14/2024	6/4/2024	9/5/2024
	Sample Purpose	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring-Resample	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring	Corrective Action Monitoring
ANALYTE	Unit																
Boron	mg/L	<0.0200	<0.0200	<0.0200	0.984	0.91	0.682	0.667	0.311	1.15 O	0.639	0.679	0.534	0.412	0.594	0.785	0.469
Calcium	mg/L	1.54	1.48	2.47	178	170	128	93.5	40.2	245 O	114	126	75.4	44.4	109	142	50.5
Chloride	mg/L	19	20	19.7	186	239	254	249	223	176 O	240	252	231	240	236	242	265
Fluoride	mg/L	0.06 J	0.06 J	<0.50	0.33	0.3	0.22	0.2	0.11	0.36 O	0.23	0.24	0.18	0.12	0.19	0.25	<0.50
pH	SU	5.00	4.93	4.96	6.16	5.97	5.74	5.66	Lab Error	6.22 O	5.82	5.82	5.81	5.50	5.92	5.86	5.58
Sulfate	mg/L	74	78	66.3	549	556	400	326	165	820 O	363	396	250	161	326	413	201
Total Dissolved Solids	mg/L	250	276 H	244	1270	1450	1210	800	762 H	1720 O	1100	1160	1010	820	1010	482	935
Antimony	mg/L	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	0.0006 JO	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	<0.0010	<0.0010	0.0005 J	<0.0200	0.0173	0.0139	0.0086	0.0081	0.114 O	0.0088	0.0126	0.0069	0.0113	0.0066	0.0072	0.0065
Barium	mg/L	0.0376	0.0368	0.0390	0.0344	0.0271	0.0325	0.036	0.037	0.194 O	0.0354	0.0331	0.0372	0.0422	0.0377	0.0328	0.0384
Beryllium	mg/L	<0.0010	<0.0010	0.0003 J	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010	0.0014 O	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0003 J
Cadmium	mg/L	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	<0.0010	<0.0010 B	0.0007 JO	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0017	0.0016	0.0348	<0.0300	<0.0015	0.0017	<0.0015	0.0008 J	0.0298 O	0.0021	0.0019	<0.0015	0.0034	0.0638	0.0035	0.0241
Cobalt	mg/L	0.0023	0.0013	0.0016	0.110	0.139	0.161	0.19	0.179	0.12 O	0.158	0.203	0.163	0.235	0.156	0.130	0.171
Lead	mg/L	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	0.0008 J	<0.0010	<0.0010	0.0321 O	<0.0010	0.0008 J	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0112	0.0104	0.0171	<0.0600	<0.00300	0.0019 J	<0.0030	<0.0030	0.0136 O	<0.0030	0.0015 J	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Mercury	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00019 JO	<0.00020	<0.00020	<0.00020 S	<0.00020	<0.00020	<0.00020	<0.00020
Molybdenum	mg/L	<0.0015	<0.0015	<0.0015	<0.0300	0.0012 J	0.0007 J	<0.0015	<0.0015	0.0154 O	0.0007 J	0.0015	<0.0015	0.0013 J	0.0014 J	0.0011 J	0.0009 J
Radium 226	pCi/L	<0.1	<0.04	<0.07	0.103 J	0.0766 J	0.242 J	0.0538 J	0.168	0.391		<0.0636	<0.25	<0.2	<0.56	<0.03	<0.18
Radium 228	pCi/L	1.03	<0.19	<0.51	0.0686 J	0.954	1.23	0.731	0.507	1.61		1.06	1.34	4.1	0.9 J	1.63	0.97 J
Radium, 226/228 Combined	pCi/L	<1.13	<0.23	<0.58	0.172 J	1.03	1.47	0.785	0.675	2		1.12	1.34	4.3	<1.46	<1.66	<1.15
Selenium	mg/L	<0.0010	<0.0010	<0.0010	<0.0200	<0.0010	<0.0010	0.0007 J	<0.0010	<0.0010 O	0.0007 J	0.0006 J	<0.0010	0.0016	<0.0010	0.0006 J	0.0007 J
Thallium	mg/L	<0.0020	<0.0020	<0.0020	<0.0400	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020 O	<0.00020	0.0013 J	<0.0020	0.0030	<0.0020	<0.0020	<0.0020
Turbidity	NTU	3.8	3.9	11	4.3	14	1.8	<1.0	Lab Error	499.79 O	6.0	4.3	8.2	5.6	6.5	13	4.9

Created by:     NMD      
 Checked by:     CLS      
 Reviewed by:     MAH    



**Table 3: Analytical Data**  
**Former Emery Pond**  
**Southern Illinois Power Cooperative Marion Power Plant**  
**Marion, Illinois**

Notes:

J = Indicates the result is estimated

< = Analyte was not detected above the method detection limit or minimum detectable concentration. For all analytes other than radium, the method detection limit is provided. For radium the result reported by the laboratory is provided.

R = relative percent difference for the laboratory duplicate outside recovery limits

mg/L = milligrams per liter

pCi/L = picoCuries per liter

NTU = Nephelometric Turbidity Unit

H = Indicates holding times exceeded

B = Analyte detected in associated Method Blank

Lab Error = Although field parameters were collected according to the Sampling and Analysis Plan (GMP Addendum #1 (Golder, 2021a), the field parameters for the December 2022 event were not recoverable. Documentation of the error is included in the Case Narrative of the final laboratory report.

S = Indicates spike recovery outside recovery limits

O = Indicates the result was removed from the statistical database as an outlier

**Table 4: Groundwater Protection Standard Summary  
Former Emery Pond  
Southern Illinois Power Cooperative Marion Power Plant  
Marion, Illinois**

Analyte	Unit	Background Tolerance Limit <sup>1</sup>	35 IAC §845 Standard <sup>2</sup>	GPS <sup>3</sup>
Antimony	mg/L	ND (0.001)	0.006	0.006
Arsenic	mg/L	ND (0.001)	0.01	0.01
Barium	mg/L	0.28	2	2
Beryllium	mg/L	ND (0.001)	0.004	0.004
Boron	mg/L	0.14	2	2
Cadmium	mg/L	ND (0.001)	0.005	0.005
Calcium	mg/L	63		63
Chloride	mg/L	86	200	200
Chromium	mg/L	ND (0.0015)	0.1	0.1
Cobalt	mg/L	0.018	0.006	0.018
Fluoride	mg/L	0.64	4	4
Lead	mg/L	ND (0.001)	0.0075	0.0075
Lithium	mg/L	0.082	0.04	0.082
Mercury	mg/L	ND (0.0002)	0.002	0.002
Molybdenum	mg/L	0.007	0.1	0.1
pH	SU	6.003-7.036	6.5-9.0	6.0-9.0
Selenium	mg/L	0.017	0.05	0.05
Sulfate	mg/L	101	400	400
Thallium	mg/L	ND (0.002)	0.002	0.002
Total Dissolved Solids	mg/L	591	1200	1200
Radium 226 and 228	pCi/L	3.48	5	5

**Notes:**

1. The background tolerance limit was calculated using the data collected between March 2017 and January 2021 at background well EBG
2. GPS provided in 35 IAC §845.600(a).
3. The former Emery Pond GPS is the higher of the background tolerance limit or the GPS provided in 35 IAC §845.600(a).

**Abbreviations:**

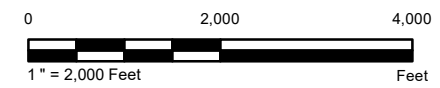
IEPA = Illinois Environmental Protection Agency  
 IAC = Illinois Administrative Code  
 GPS = Groundwater Protection Standard  
 mg/L = milligrams per Liter  
 ND = Non-detect concentration  
 pCi/L = picoCuries per Liter  
 pH = potential of Hydrogen  
 SU= Standard Units

Created by: CCC  
 Checked by: DPJ  
 Reviewed by: MAH

## FIGURES



B:\Southern\_Illinois\_Power\_Cooperative\Marion\_Power\_Plant\99\_Proj\21467997\_Operating\_Permit\_Application\001\_Water\_Vel\_Survey\40\_PROD\21467997-0001-HS-0004\_new.mxd



**NOTE(S)**

**REFERENCE(S)**

- 1. COORDINATE SYSTEM: GCS WGS 1984
- 2. BASEMAP CONSISTS OF USGS 7.5 MINUTE QUADRANGLE MAPS.

**CLIENT**

SOUTHERN ILLINOIS POWER COOPERATIVE

**PROJECT**

ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
FORMER EMERY POND

**TITLE**

**SITE LOCATION MAP**

**CONSULTANT**



YYYY-MM-DD	2022-01-12
DESIGNED	DFSC
PREPARED	DTD
REVIEWED	DFSC
APPROVED	MAH

PROJECT NO. CONTROL  
GLA21467997.2353 -

REV. -




FIGURE  
1

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB





**LEGEND**

-  Background Monitoring Well
-  Downgradient Monitoring Well
-  Approximate Limits of the Former Emery Pond

**NOTE(S)**

**REFERENCE(S)**

1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
2. IMAGERY SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY
3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

**CLIENT**

SOUTHERN ILLINOIS POWER COOPERATIVE

**PROJECT**

ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
FORMER EMERY POND

**TITLE**

**MONITORING WELL LOCATION MAP**

**CONSULTANT**



YYYY-MM-DD	2022-01-25
DESIGNED	DFSC
PREPARED	DTD
REVIEWED	DFSC
APPROVED	MAH

PROJECT NO. CONTROL  
GLA21467997.2353

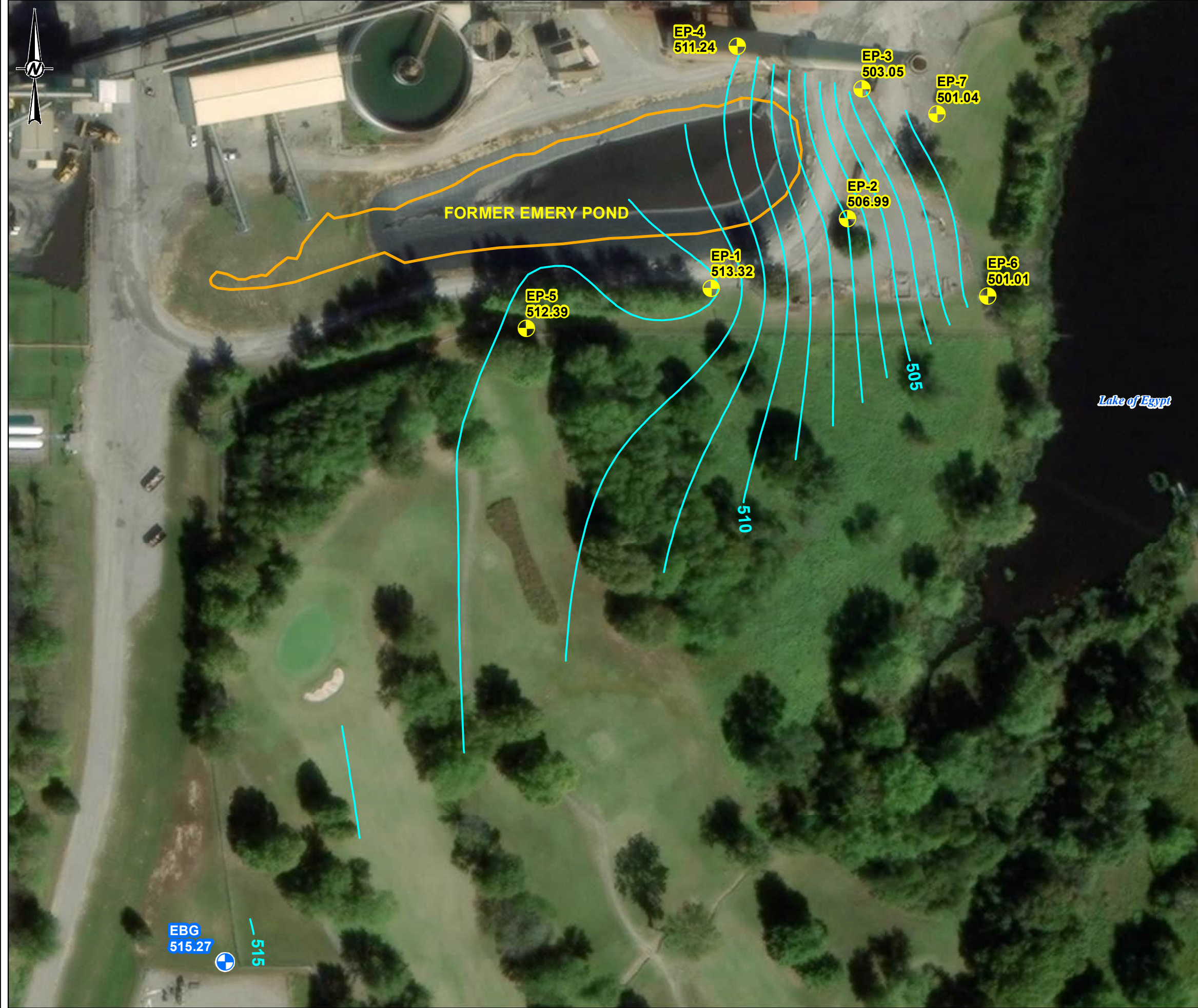
REV. -

FIGURE 2

B:\Sullivan, Illinois, Power, Cooperative\MapInfo, Power, Plant\199, PROJ\21467997, Operating, Permit, Application\0001, Water, Use, Survey\410, PROJ\21467997, 0001, IIS-0002.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS B





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- January 2024 Groundwater Contour
- Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON JANUARY 8, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
 SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

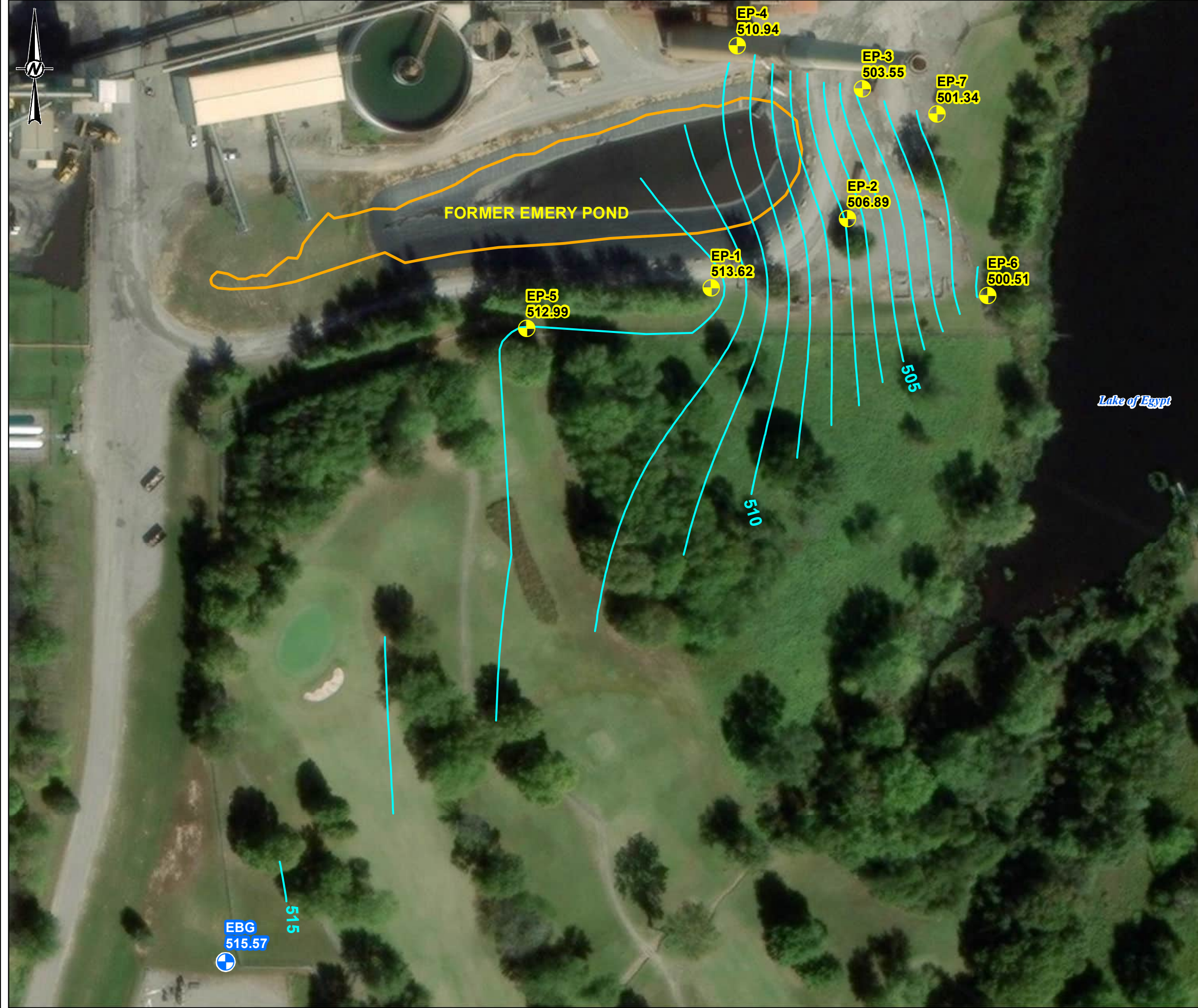
TITLE  
**JANUARY 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

B:\Southern Illinois Power Cooperative\Illinois Power Plant\99\_P\PROJ\21467997\_Operating\_Brents\_Application\0008\_water\_well\_contour\_2024121467997\_0008-11-27.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS 8





- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - February 2024 Groundwater Contour
  - Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON FEBRUARY 19, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT

SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

TITLE  
**FEBRUARY 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

B:\Southern\_Illinois\_Power\_Cooperative\MapInfo\_Power\_Plant\99\_PROJ\21467997\_Operating\_Permit\_Application\0008\_water\_well\_contour\_2024121467997\_0008-HIS-0004.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS 8





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- March 2024 Groundwater Contour
- Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON MARCH 18, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT

SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

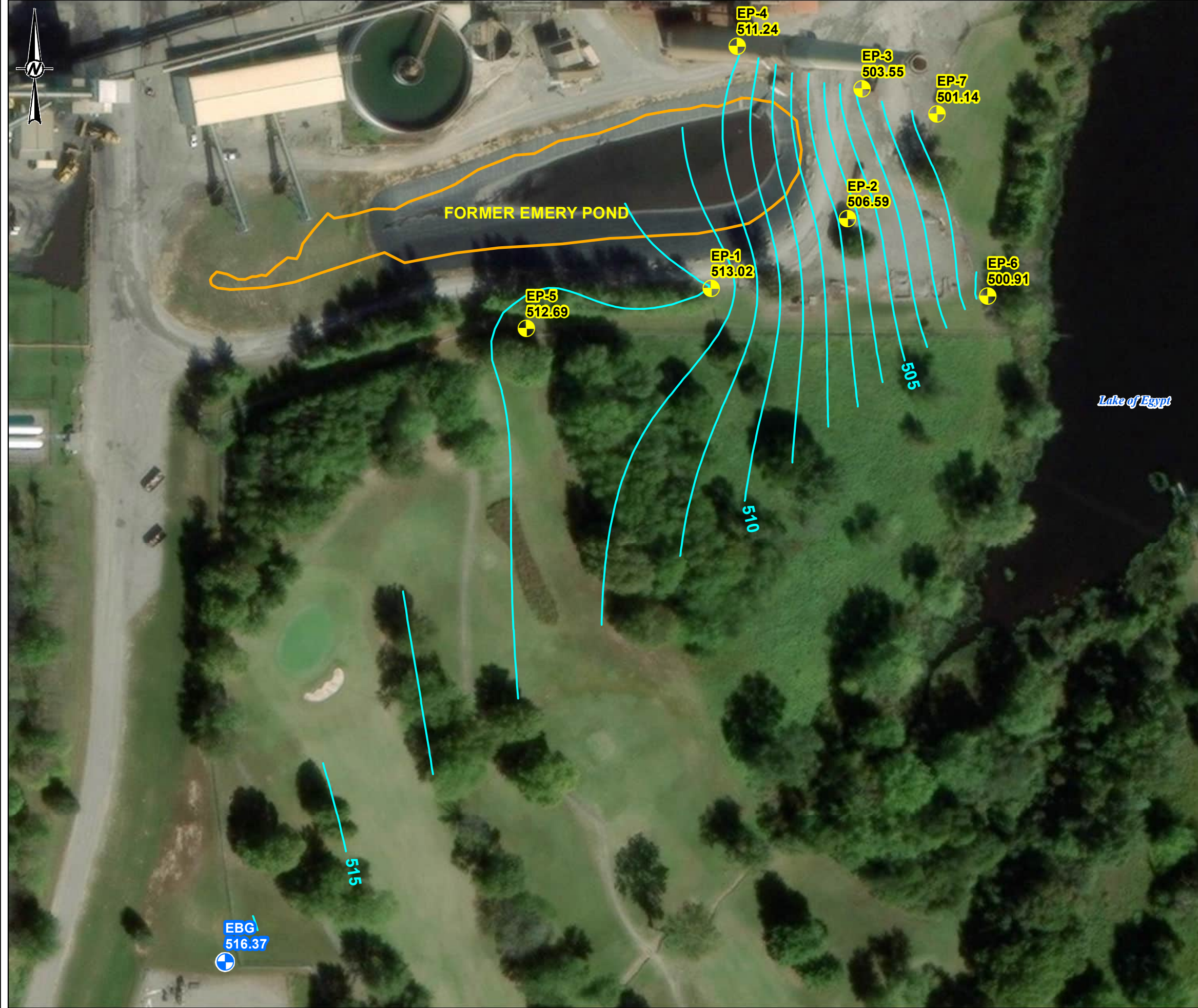
TITLE  
**MARCH 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS 8





- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - April 2024 Groundwater Contour
  - Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON APRIL 19, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
 SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

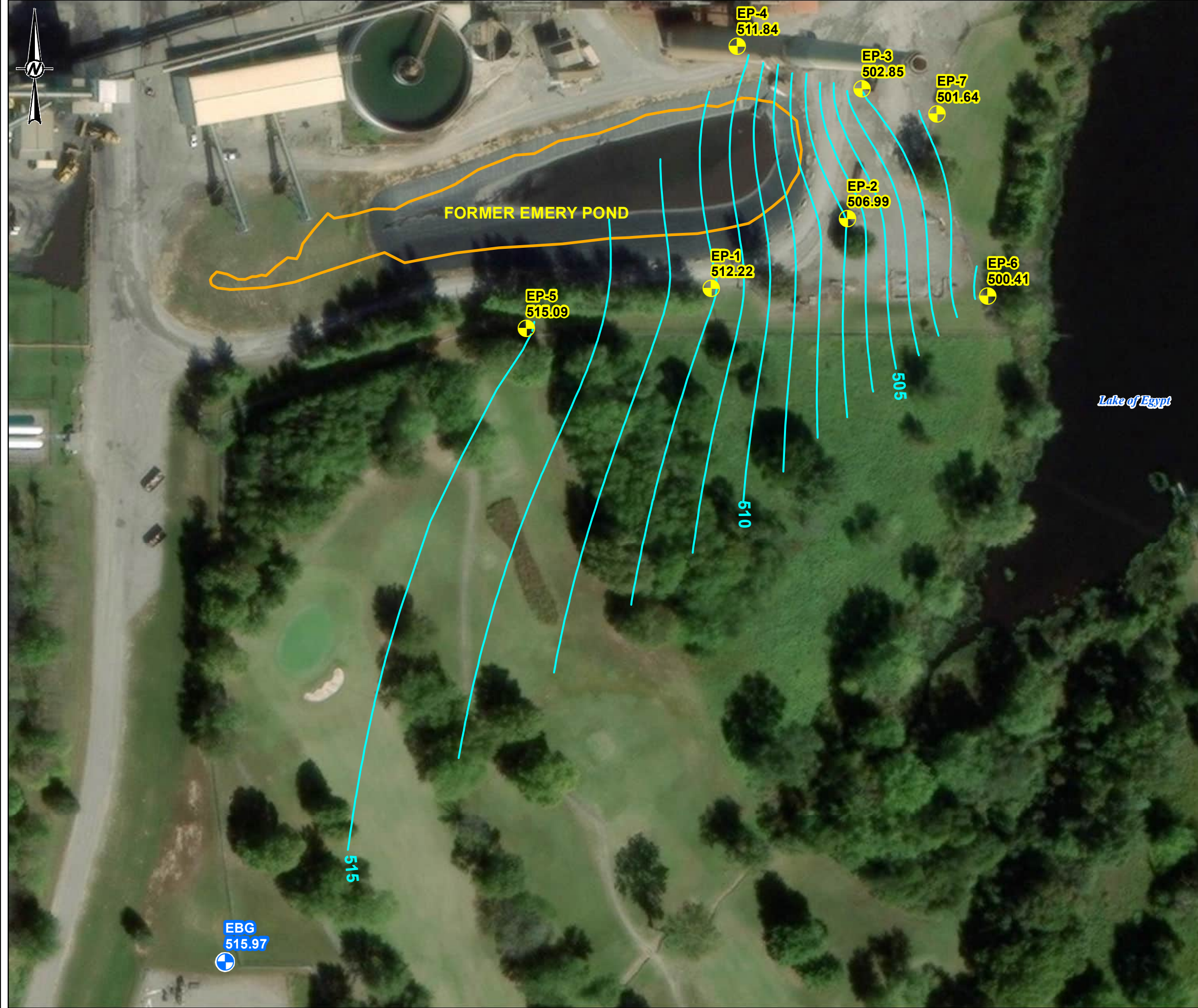
TITLE  
 APRIL 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

B:\Southern\_Illinois\_Power\_Cooperative\MapInfo\_Power\_Plant\99\_PROJ\21467997\_Operating\_Brents\_Application\0008\_water\_well\_contour\_20241214167997\_0008-11-27.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS B





- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - May 2024 Groundwater Contour
  - Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON MAY 20, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
 SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

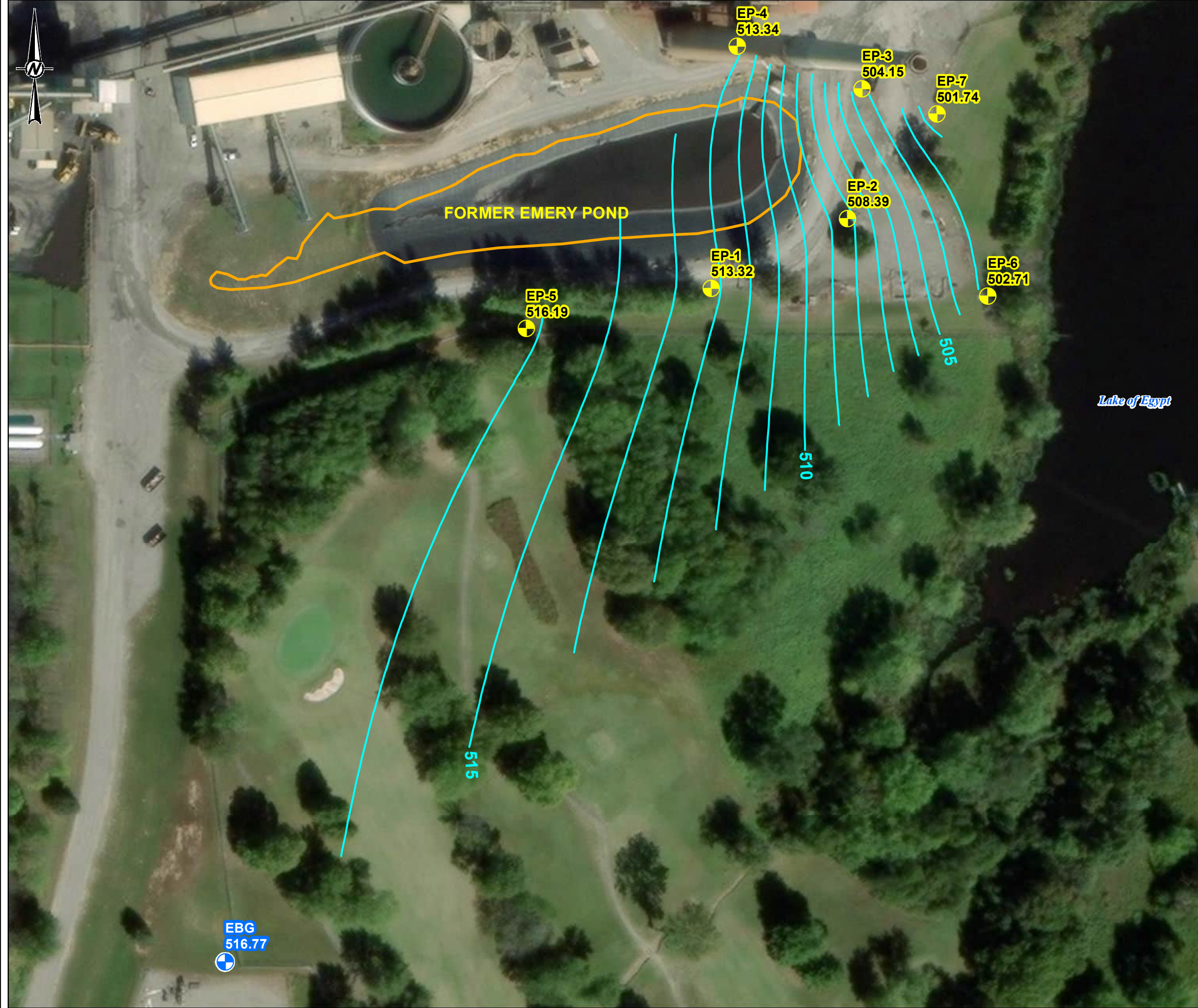
TITLE  
**MAY 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-25
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

B:\Southern\_Illinois\_Power\_Cooperative\Illinois\_Power\_Plant\99\_P\PROJECTS\1467997\_Operating\_Brents\_Application\0008\_water\_well\_contour\_20241214\67997\_0008-11-25.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B





- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - June 2024 Groundwater Contour
  - Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON JUNE 17, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT

SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

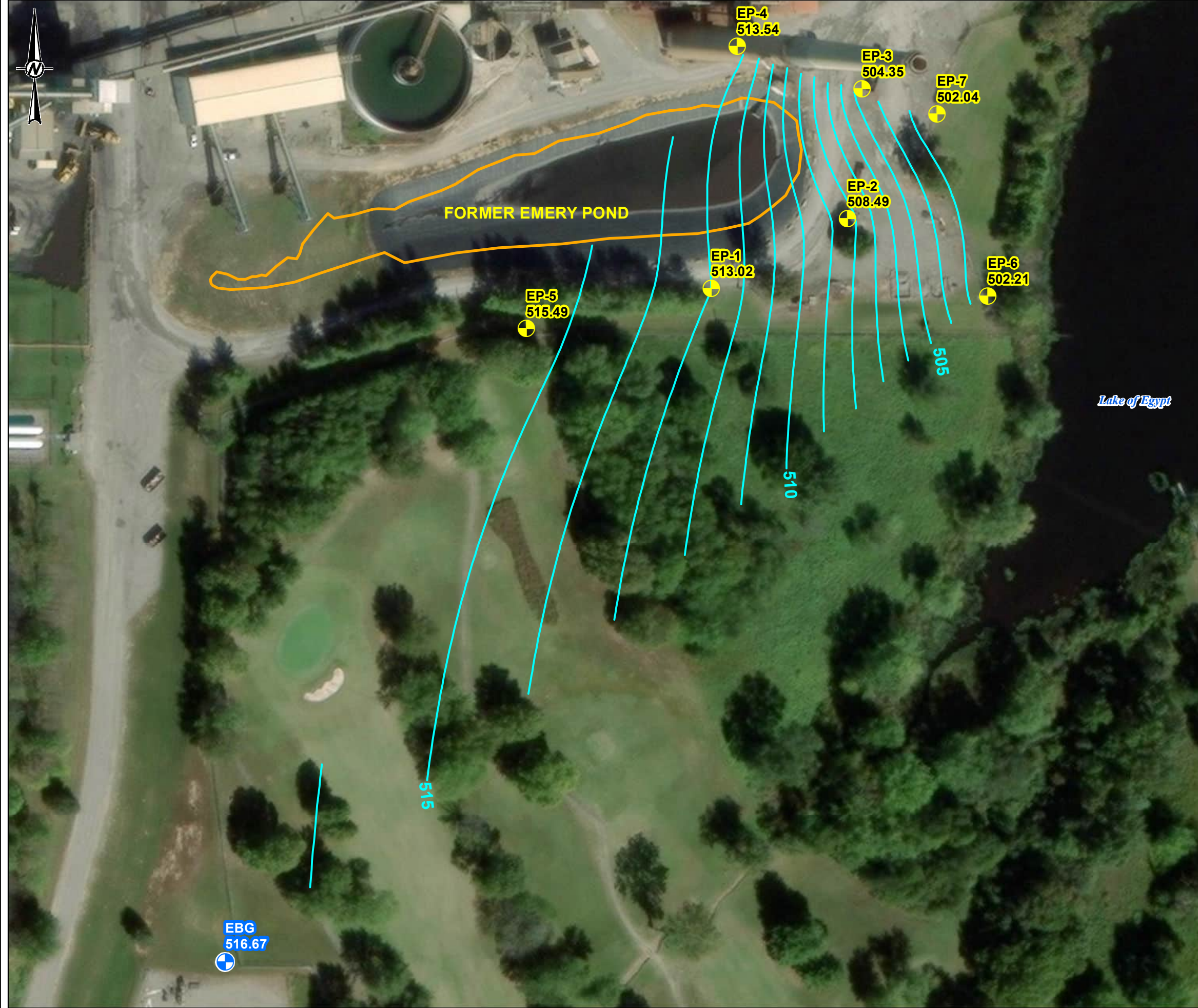
TITLE  
**JUNE 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS 8





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- July 2024 Groundwater Contour
- Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON JULY 15, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

**NOTE(S)**

1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

**REFERENCE(S)**

1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
 SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

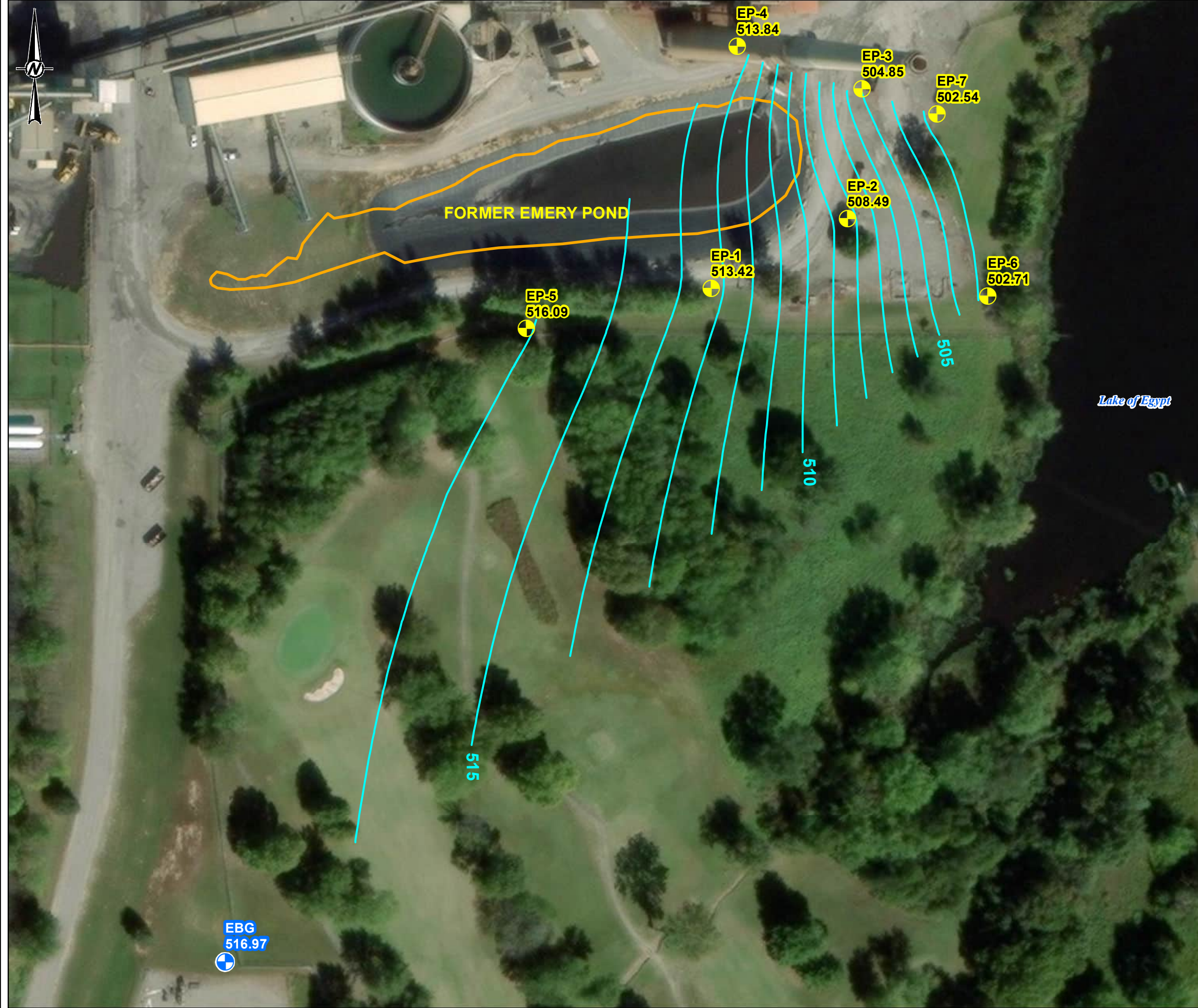
TITLE  
**JULY 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-25
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

B:\Southern\_Illinois\_Power\_Cooperative\Illinois\_Power\_Plant\99\_PROJ\21467997\_Operating\_Permit\_Application\0008\_Water\_well\_contour\_20241214167997\_0008-11-25.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B





- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - August 2024 Groundwater Contour
  - Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON AUGUST 20, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

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PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

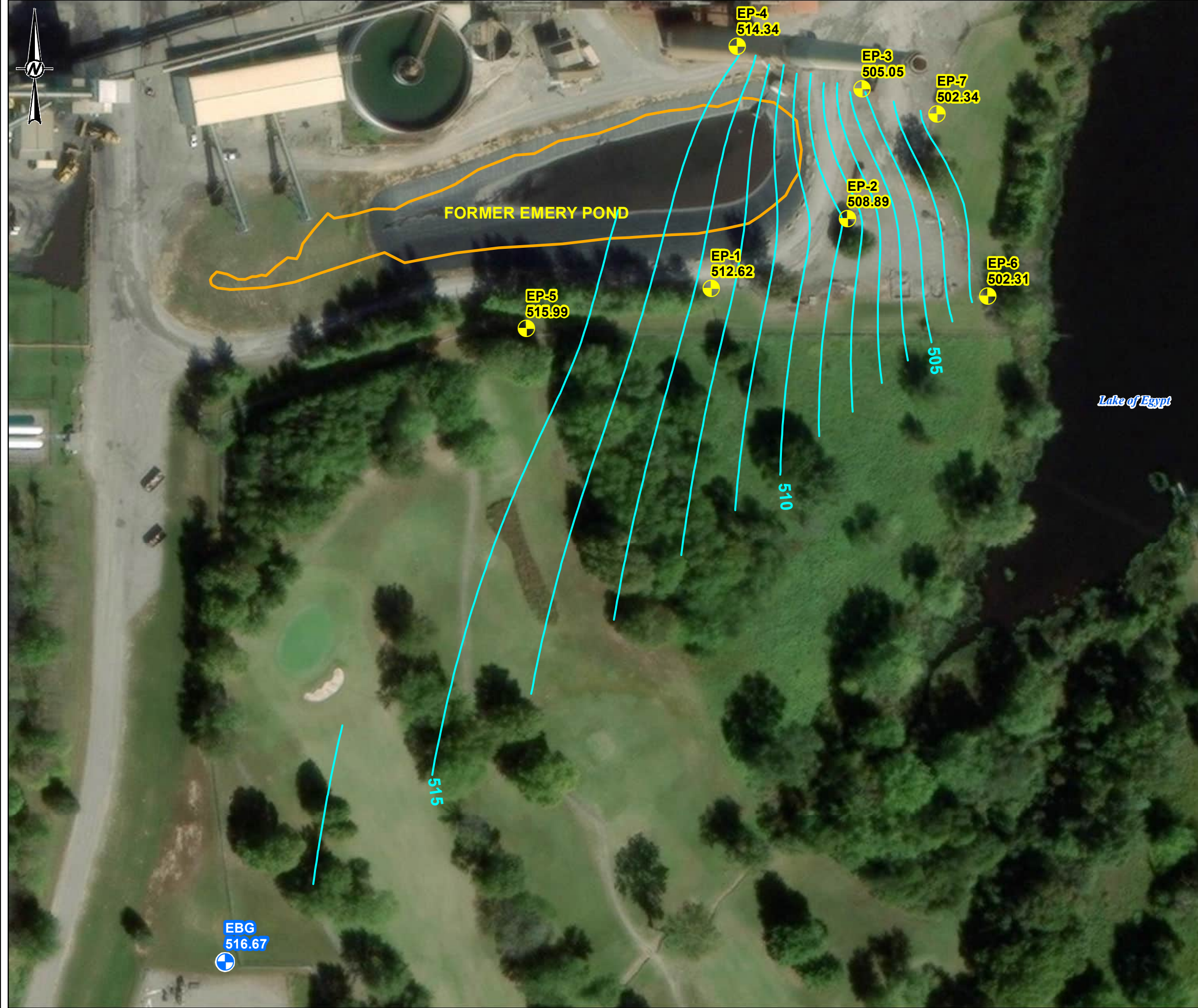
TITLE  
 AUGUST 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- September 2024 Groundwater Contour
- Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON SEPTEMBER 9, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
**SOUTHERN ILLINOIS POWER COOPERATIVE**

PROJECT  
**ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND**

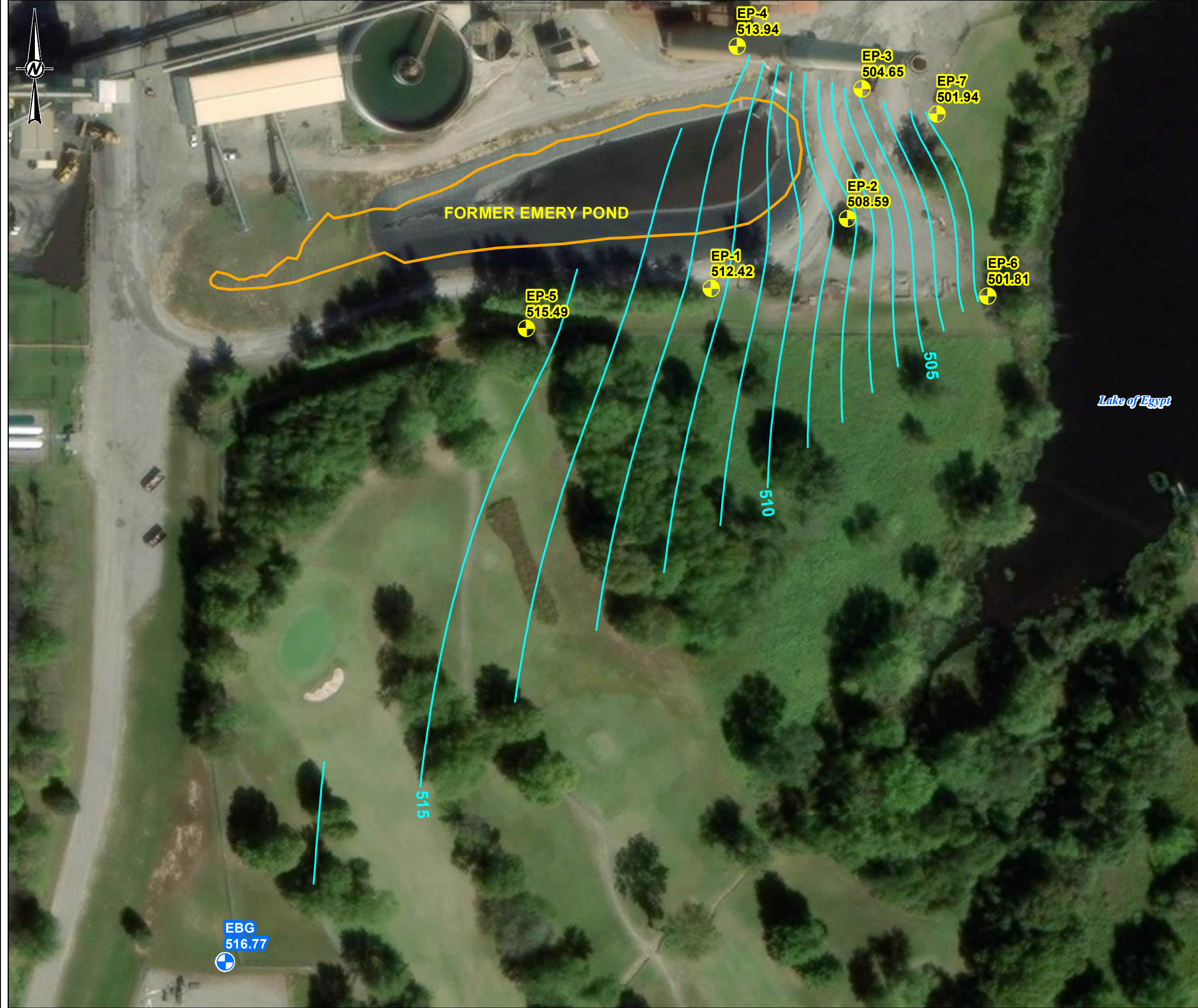
TITLE  
**SEPTEMBER 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-25
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- October 2024 Groundwater Contour
- Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON OCTOBER 14, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

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PROJECT  
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 FORMER EMERY POND

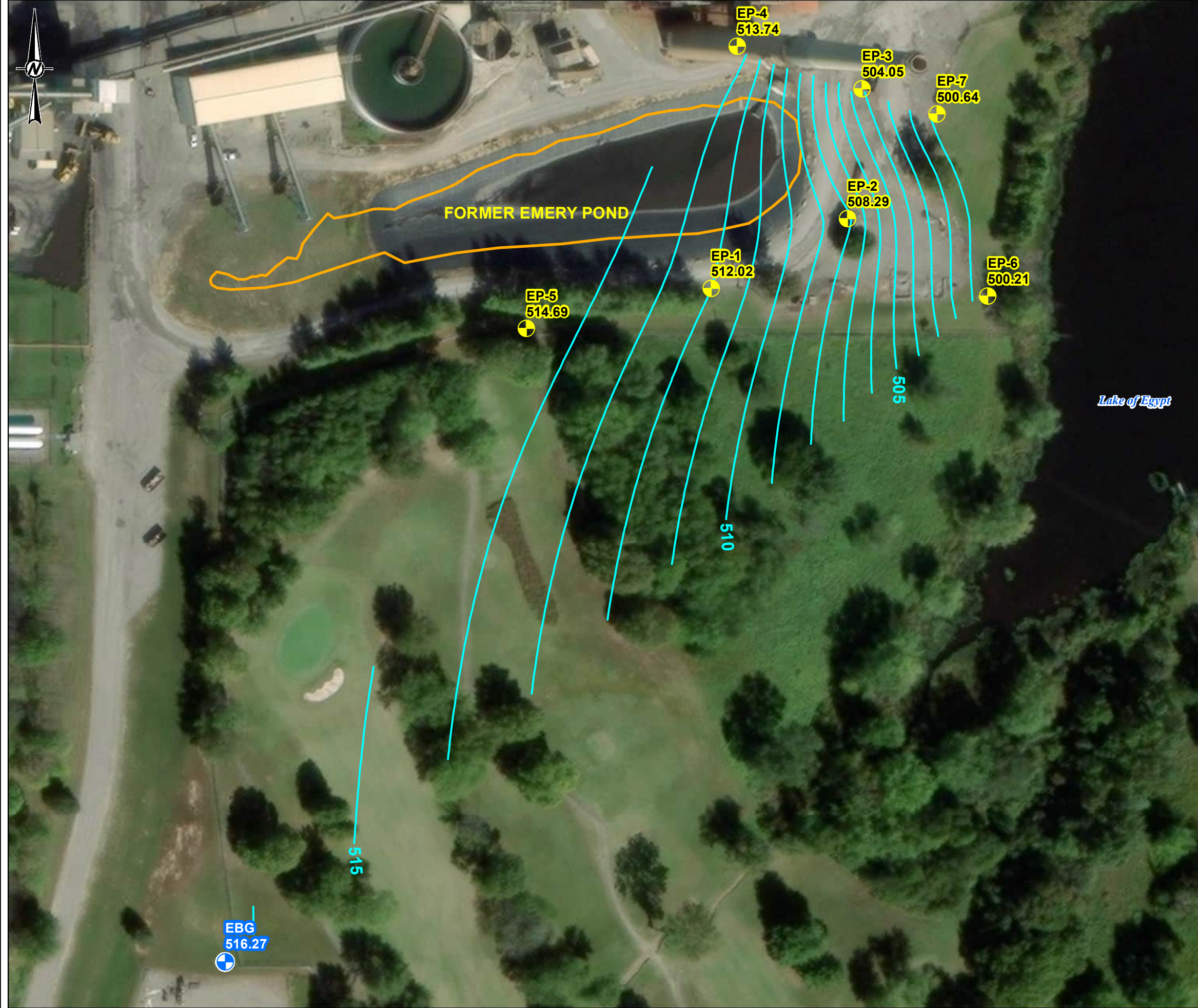
TITLE  
**OCTOBER 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-11-25
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS 8





- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - November 2024 Groundwater Contour
  - Approximate Limits of the Former Emery Pond



**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON NOVEMBER 13, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
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PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

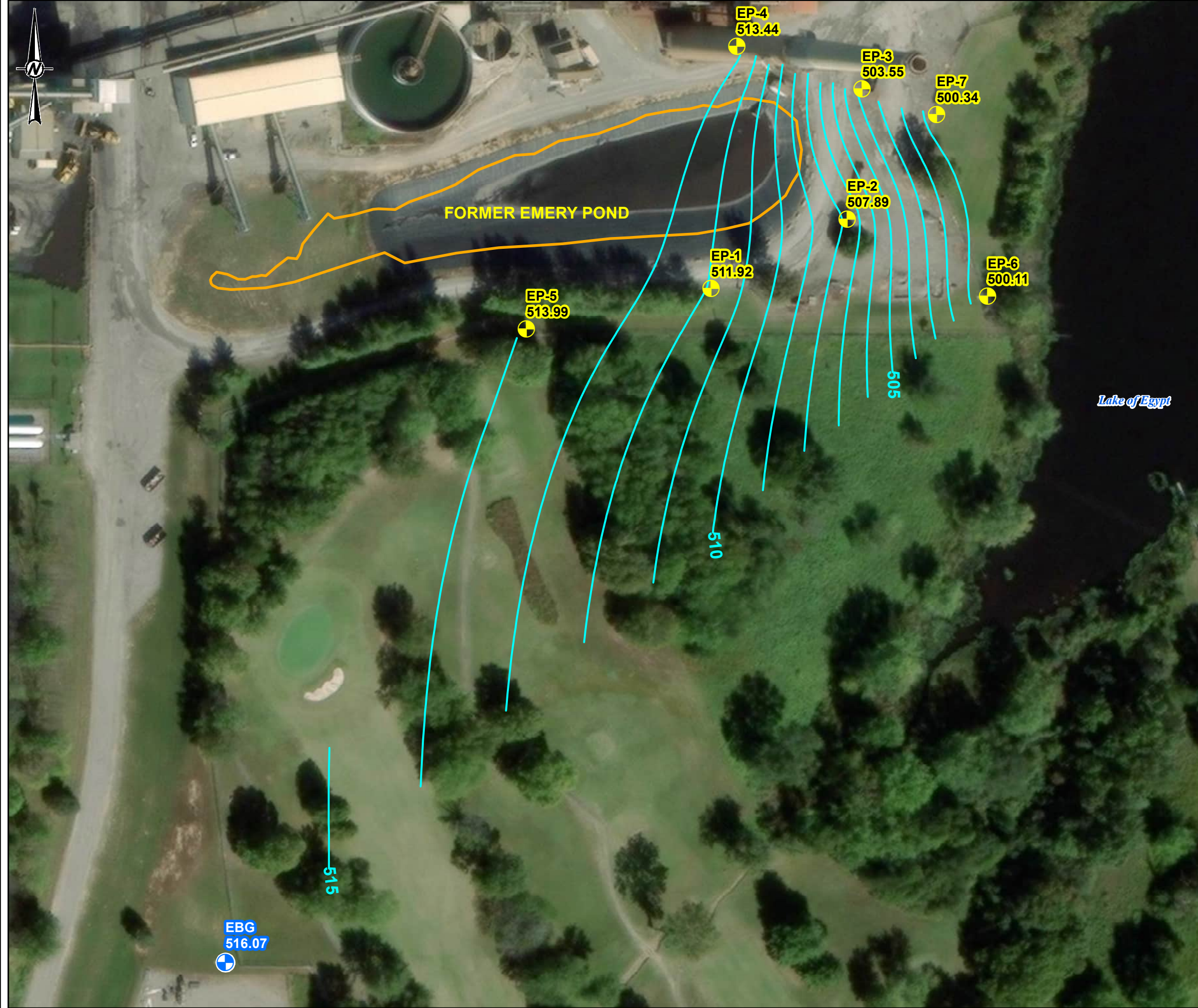
TITLE  
 NOVEMBER 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP

CONSULTANT	YYYY-MM-DD	2024-11-27
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS 8





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- December 2024 Groundwater Contour
- Approximate Limits of the Former Emery Pond

**FIGURE NARRATIVE**  
 THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION IN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY SIPC ON DECEMBER 12, 2024. THE DIRECTION OF THE HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

- NOTE(S)**
1. THE COORDINATES FOR THIS SITE ARE ILLINOIS STATE PLANE WEST 1201
  2. WELL LOCATIONS AND ELEVATIONS OBTAINED FROM WELL CONSTRUCTION BORING LOGS PROVIDED BY SOUTHERN ILLINOIS POWER COMPANY.
  3. GROUNDWATER ELEVATION MEASURED IN FEET ABOVE MEAN SEA LEVEL.

- REFERENCE(S)**
1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
  2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
  3. MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
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PROJECT  
 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
 FORMER EMERY POND

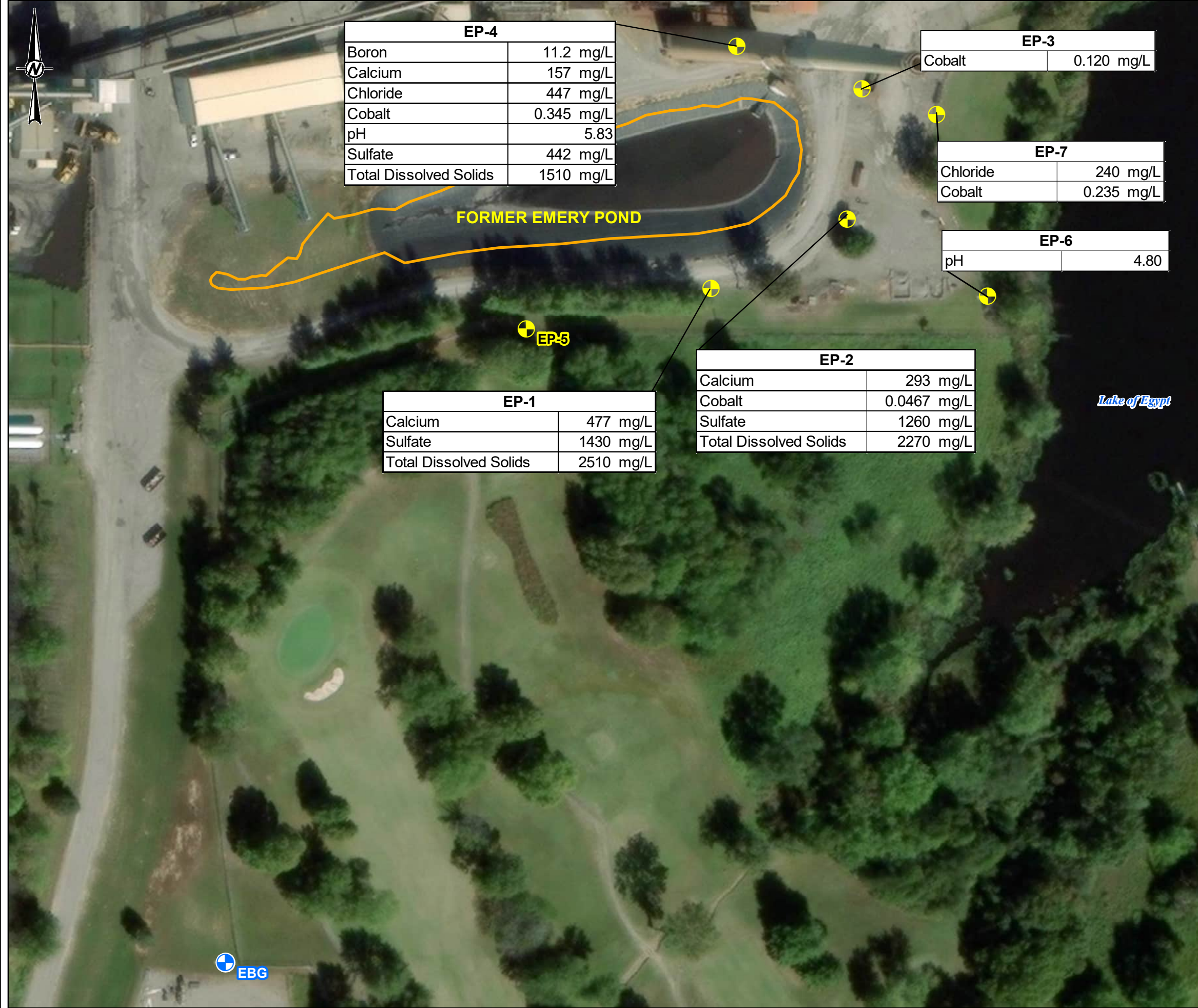
TITLE  
**DECEMBER 2024, GROUNDWATER SURFACE ELEVATION  
 CONTOUR MAP**

CONSULTANT	YYYY-MM-DD	2024-12-16
	DESIGNED	DFSC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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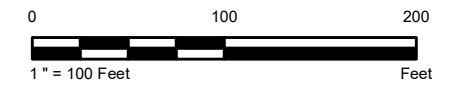
1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANS I





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- Approximate Limits of the Former Emery Pond



**NOTE(S)**

- ONLY SAMPLE RESULTS COLLECTED IN DECEMBER 2023 AND DETECTED ABOVE A GROUNDWATER PROTECTION STANDARD ARE PROVIDED ON THIS FIGURE.
- mg/L- MILLIGRAMS PER LITER

**REFERENCE(S)**

- COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
- IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
- MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
FORMER EMERY POND

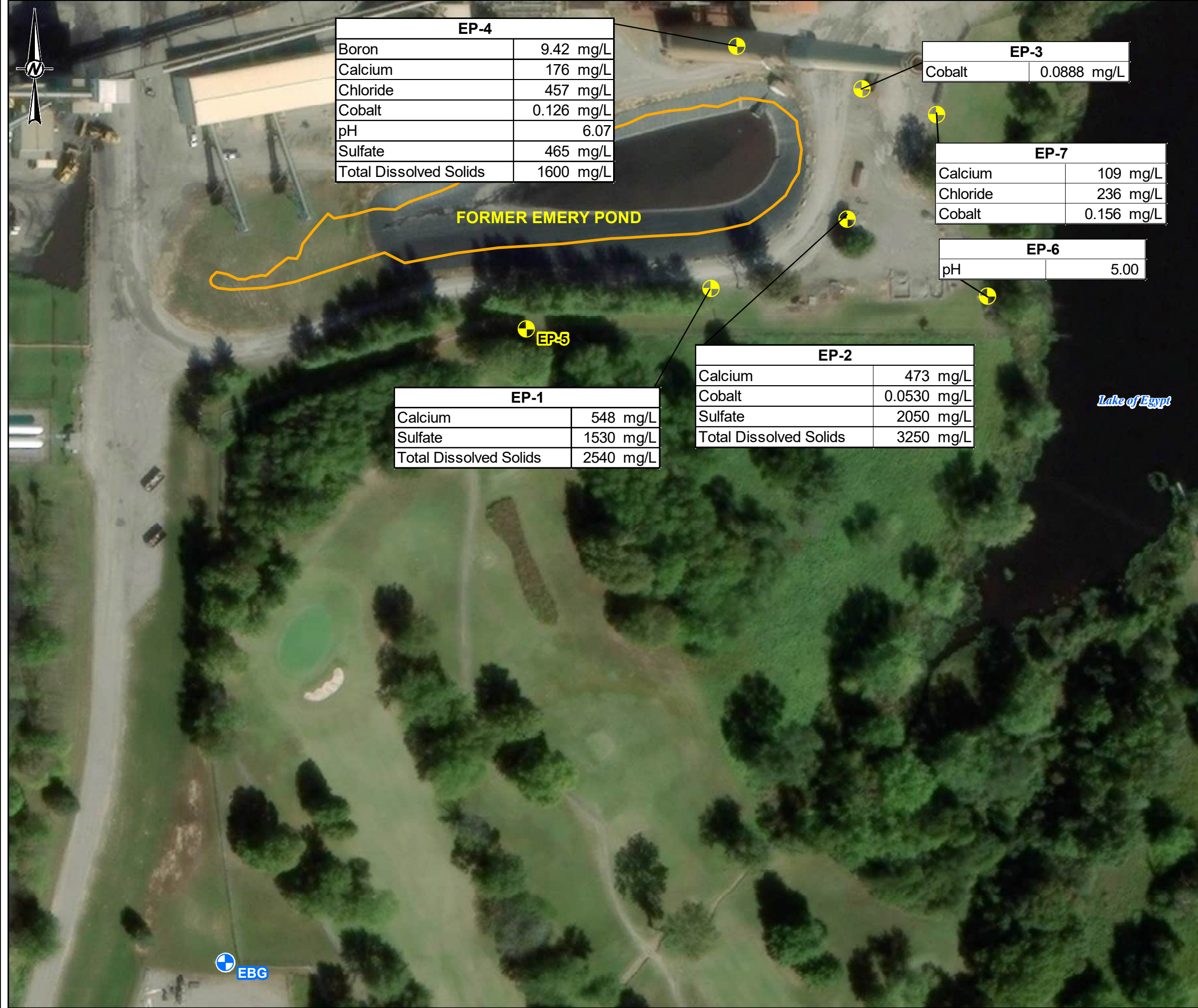
TITLE  
**DECEMBER 2023, EXTENT OF CONSTITUENTS DETECTED AT STATISTICALLY SIGNIFICANT LEVELS ABOVE THE GROUNDWATER PROTECTION STANDARD**

CONSULTANT	YYYY-MM-DD	2024-12-24
	DESIGNED	CCC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

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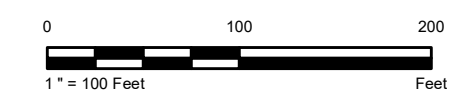
1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B





**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- Approximate Limits of the Former Emery Pond



**NOTE(S)**

- ONLY SAMPLE RESULTS COLLECTED IN MARCH 2024 AND DETECTED ABOVE A GROUNDWATER PROTECTION STANDARD ARE PROVIDED ON THIS FIGURE.
- mg/L- MILLIGRAMS PER LITER

**REFERENCE(S)**

- COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
- IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
- MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

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ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
FORMER EMERY POND

TITLE  
**MARCH 2024, EXTENT OF CONSTITUENTS DETECTED AT STATISTICALLY SIGNIFICANT LEVELS ABOVE THE GROUNDWATER PROTECTION STANDARDS**

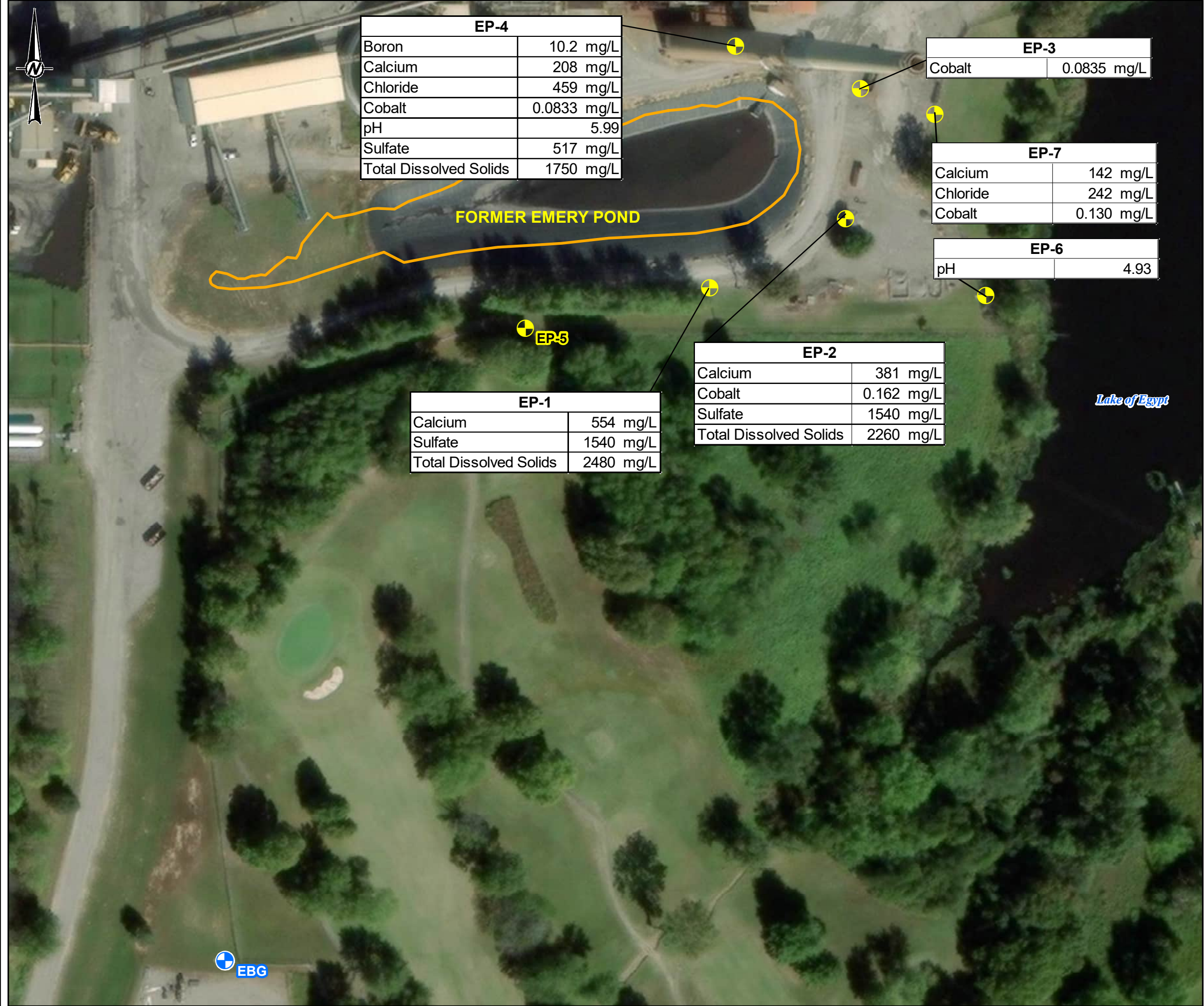
CONSULTANT	YYYY-MM-DD	2024-12-24
	DESIGNED	CCC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH

B:\Southern\_Illinois\_Power\_Cooperative\Barton\_Power\_Plant\199\_PROJ\21467997\_Opening\_Permit\_Application\0008\_water\_well\_contour\_2024\21467997-0008-HS-0010.mxd

1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B



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EP-4	
Boron	10.2 mg/L
Calcium	208 mg/L
Chloride	459 mg/L
Cobalt	0.0833 mg/L
pH	5.99
Sulfate	517 mg/L
Total Dissolved Solids	1750 mg/L

EP-3	
Cobalt	0.0835 mg/L

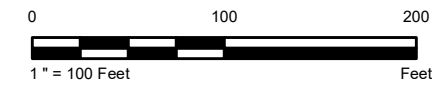
EP-7	
Calcium	142 mg/L
Chloride	242 mg/L
Cobalt	0.130 mg/L

EP-6	
pH	4.93

EP-2	
Calcium	381 mg/L
Cobalt	0.162 mg/L
Sulfate	1540 mg/L
Total Dissolved Solids	2260 mg/L

EP-1	
Calcium	554 mg/L
Sulfate	1540 mg/L
Total Dissolved Solids	2480 mg/L

- LEGEND**
- Background Monitoring Well
  - Downgradient Monitoring Well
  - Approximate Limits of the Former Emery Pond



**NOTE(S)**

1. ONLY SAMPLE RESULTS COLLECTED IN JUNE 2024 AND DETECTED ABOVE A GROUNDWATER PROTECTION STANDARD ARE PROVIDED ON THIS FIGURE.
2. mg/L- MILLIGRAMS PER LITER

**REFERENCE(S)**

1. COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
2. IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
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FORMER EMERY POND

TITLE  
**JUNE 2024, EXTENT OF CONSTITUENTS DETECTED AT STATISTICALLY SIGNIFICANT LEVELS ABOVE THE GROUNDWATER PROTECTION STANDARDS**

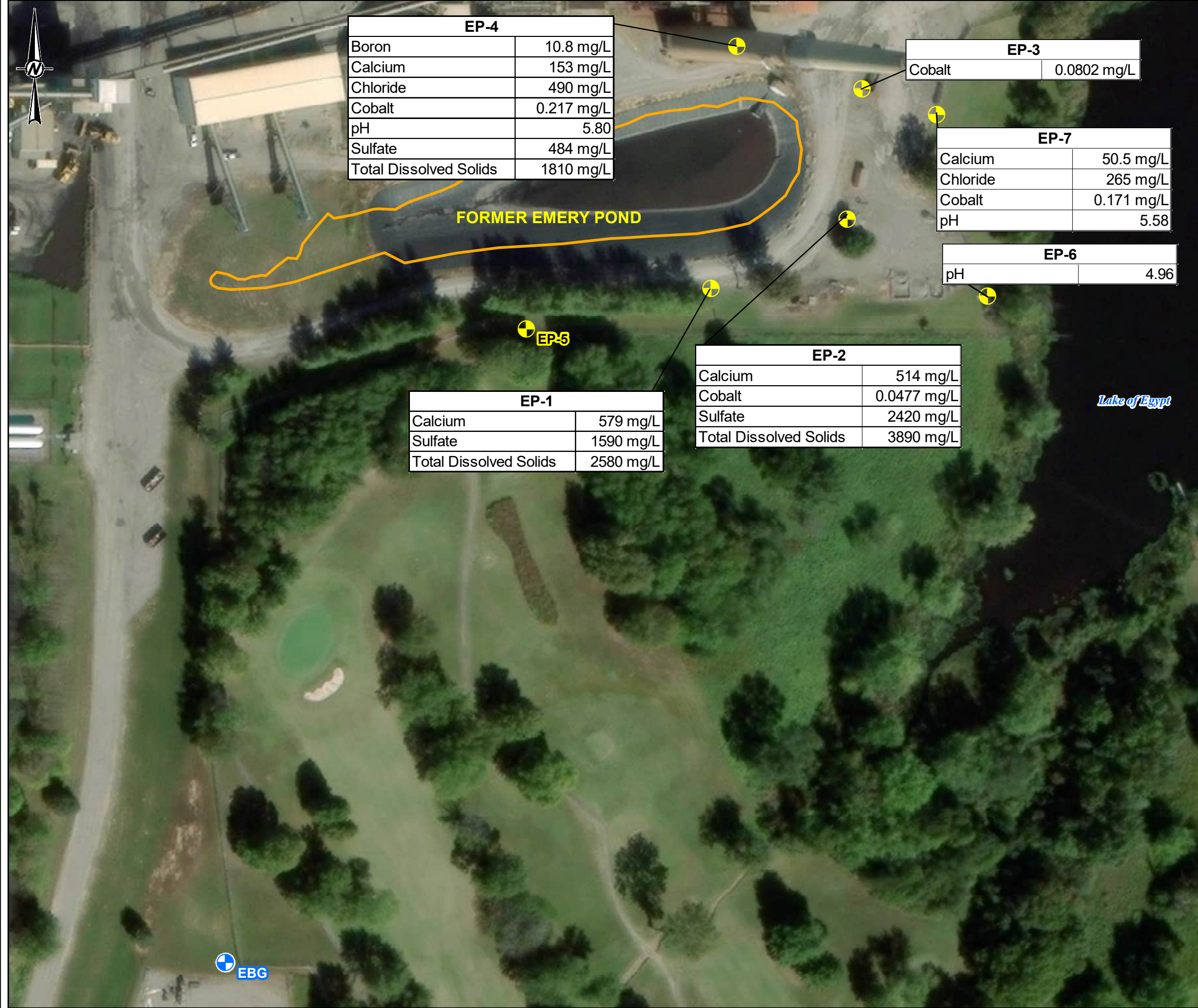
CONSULTANT	YYYY-MM-DD	2024-12-24
	DESIGNED	CCC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH



1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANS I B



\\spp-jphannet\US\Central\GIS\MR\2024\SI\Southern\_Illinois\_Power\_Cooperative\Marion\_Power\_Permit\09\_PRC\241467997\_Correcting\_Permit\_Application\0306\_water\_well\_contour\_2024\241467997\_0306-HS-091\_8.mxd



**LEGEND**

- Background Monitoring Well
- Downgradient Monitoring Well
- Approximate Limits of the Former Emery Pond

EP-4	
Boron	10.8 mg/L
Calcium	153 mg/L
Chloride	490 mg/L
Cobalt	0.217 mg/L
pH	5.80
Sulfate	484 mg/L
Total Dissolved Solids	1810 mg/L

EP-3	
Cobalt	0.0802 mg/L

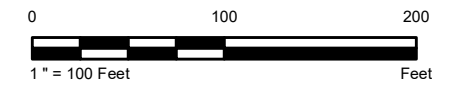
EP-7	
Calcium	50.5 mg/L
Chloride	265 mg/L
Cobalt	0.171 mg/L
pH	5.58

EP-6	
pH	4.96

EP-2	
Calcium	514 mg/L
Cobalt	0.0477 mg/L
Sulfate	2420 mg/L
Total Dissolved Solids	3890 mg/L

EP-1	
Calcium	579 mg/L
Sulfate	1590 mg/L
Total Dissolved Solids	2580 mg/L

EP-5



**NOTE(S)**

- ONLY SAMPLE RESULTS COLLECTED IN SEPTEMBER 2024 AND DETECTED ABOVE A GROUNDWATER PROTECTION STANDARD ARE PROVIDED ON THIS FIGURE.
- mg/L- MILLIGRAMS PER LITER

**REFERENCE(S)**

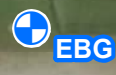
- COORDINATE SYSTEM: NAD 1983 STATEPLANE ILLINOIS EAST FIPS 1201 FEET
- IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY
- MONITORING WELL LOCATION DATA RECEIVED FROM SOUTHERN ILLINOIS POWER COOPERATIVE

CLIENT  
SOUTHERN ILLINOIS POWER COOPERATIVE

PROJECT  
ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT  
FORMER EMERY POND

TITLE  
**SEPTEMBER 2024, EXTENT OF CONSTITUENTS DETECTED AT STATISTICALLY SIGNIFICANT LEVELS ABOVE THE GROUNDWATER PROTECTION STANDARDS**

CONSULTANT	YYYY-MM-DD	2024-12-24
	DESIGNED	CCC
	PREPARED	EMM
	REVIEWED	DFSC
	APPROVED	MAH



1in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANS I B

**APPENDIX A**






























## **Boring Logs**










# KEY TO SYMBOLS

Hanson Professional Services Inc.  
1525 S. Sixth Street  
Springfield, Illinois 62703  
(217) 788-2450






## LITHOLOGIC SYMBOLS (Unified Soil Classification System)

	ASPHALT ASHPALT		MH ELASTIC SILT
	BASALT BASALT		ML SILT
	BLDRCBBL BOULDERS AND COBBLES		OH HIGH PLASTICITY ORGANIC SILT
	BRECCIA BRECCIA		OL LOW PLASTICITY SILT
	CH HIGH PLASTICITY CLAY		PT PEAT
	CL LOW PLASTICITY CLAY		SANDSTONE
	COAL COAL		SC CLAYEY SAND
	CONC. CONCRETE		SHALE
	FILL FILL		SILTSTONE
	GC CLAYEY GRAVEL		SM SILTY SAND
	GM SILTY GRAVEL		SP POORLY GRADED SAND
	GPS SANDY GRAVEL		SW WELL GRADED SAND
	GP POORLY GRADED GRAVEL		TILL GLACIAL TILL
	GW WELL GRADED GRAVEL		TOPSOIL
	LIMESTONE		

## SAMPLER SYMBOLS

	GRAB / AUGER CUTTINGS HAND AUGER [AUG or HA]
	SPLIT SPOON / SPT [SS]
	SHELBY TUBE [SH]
	ROCK CORE [RC]
	CONTINUOUS OR MACROSAMPLER [CS or DP]
	BLIND DRILL [BD]
	MODIFIED CALIFORNIA SAMPLER [MC]

## WELL SYMBOLS

	CONCRETE SURFACE SEAL
	HIGH-SOLIDS BENTONITE GROUT
	BENTONITE CHIP SEAL
	SAND PACK W/SOLID RISER
	SAND PACK W/SCREEN

## ABBREVIATIONS

LL - Liquid Limit (%)	NP - Non-Plastic
PL - Plastic Limit (%)	Qu - Unconfined Compressive Strength (tsf)
woh - Weight of Hammer	Qp (P) - Pocket Penetrometer
wor - Weight of Rods	TV - Torvane
MaxGS - Maximum Grain Size	PID - Photoionization Detector
<#200 - Percent Passing No. 200 Sieve	ppm - Parts per Million

## GROUNDWATER LEVELS

	Level during drilling, or as indicated		Level after 24 hours, or as indicated		Level as indicated
---	---	---	--	---	--------------------

**Client: Southern Illinois Power Cooperative**

**Project Name: SIPC Marion CCR**

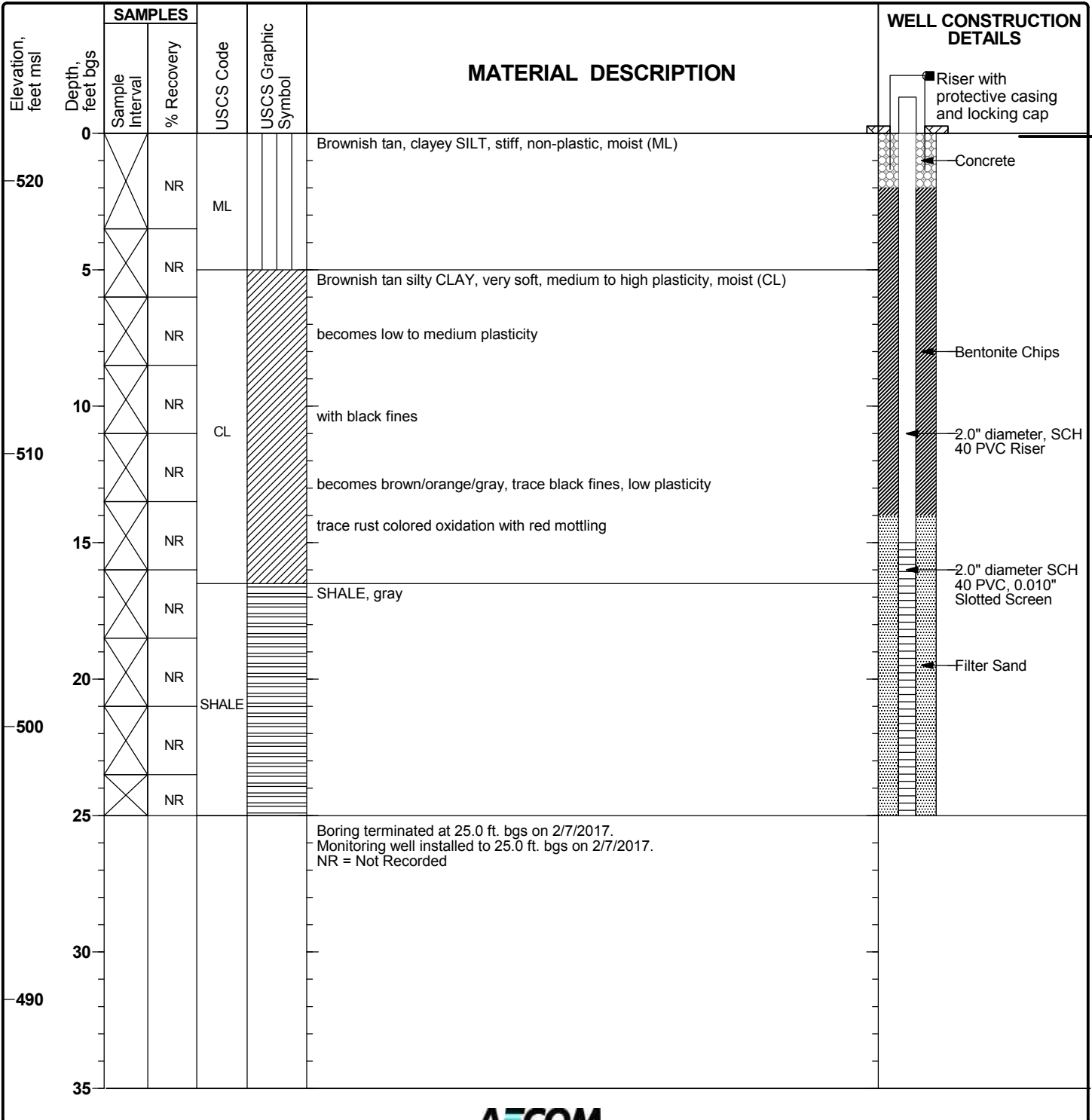
**Project Location: SIPC Marion**

**Project Number: 60535846**

# Log of EBG

Sheet 1 of 1

Date(s) Drilled and Installed	<b>2/8/2017</b>	Logged By	<b>Suzanne Dale</b>	Reviewed By	
Drilling Method	<b>Hollow Stem Auger</b>	Drilling Contractor	<b>Holcomb Engineering</b>	Total Depth of Borehole	<b>25.0 feet, bgs</b>
Sampling Method	<b>Split Spoon</b>	Water Level TOIC	<b>Not measured</b>	TOC Elevation Ground Surface	<b>524.87 ft, msl 521.74 ft, msl</b>
Size and Type of Well Casing	<b>2-Inch Schedule 40 PVC</b>	Screen Perforation	<b>0.010 - inch</b>	Northing (Plant) Easting (Plant)	<b>346358.14 ft 804168.155 ft</b>
Seal or Backfill	<b>Bentonite Chips</b>				



SIPC MARION SIPC MARION.GPJ 10/9/17





**Client: Southern Illinois Power Cooperative**

**Project Name: SIPC Marion CCR**

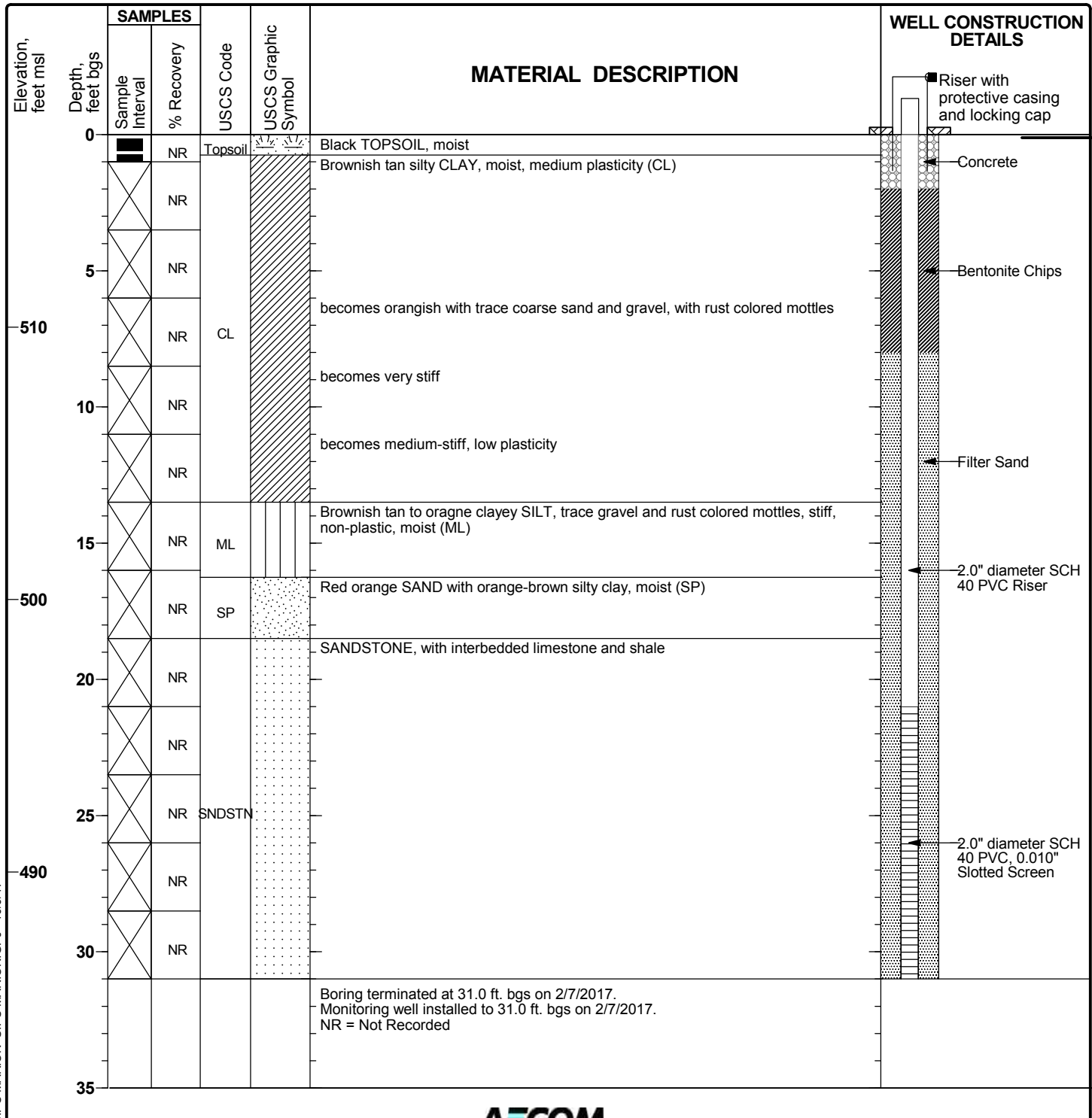
**Project Location: SIPC Marion**

**Project Number: 60535846**

# Log of EP-1

Sheet 1 of 1

Date(s) Drilled and Installed	2/7/2017	Logged By	Suzanne Dale	Reviewed By	
Drilling Method	Hollow Stem Auger	Drilling Contractor	Holcomb Engineering	Total Depth of Borehole	31.0 feet, bgs
Sampling Method	Split Spoon	Water Level TOIC	Not measured	TOC Elevation Ground Surface	519.72 ft, msl 517.07 ft, msl
Size and Type of Well Casing	2-Inch Schedule 40 PVC	Screen Perforation	0.010 - inch	Northing (Plant)	347042.306 ft
Seal or Backfill	Bentonite Chips			Easting (Plant)	804661.174 ft



SIPC MARION SIPC MARION.GPJ 10/9/17

**Client: Southern Illinois Power Cooperative**

**Project Name: SIPC Marion CCR**

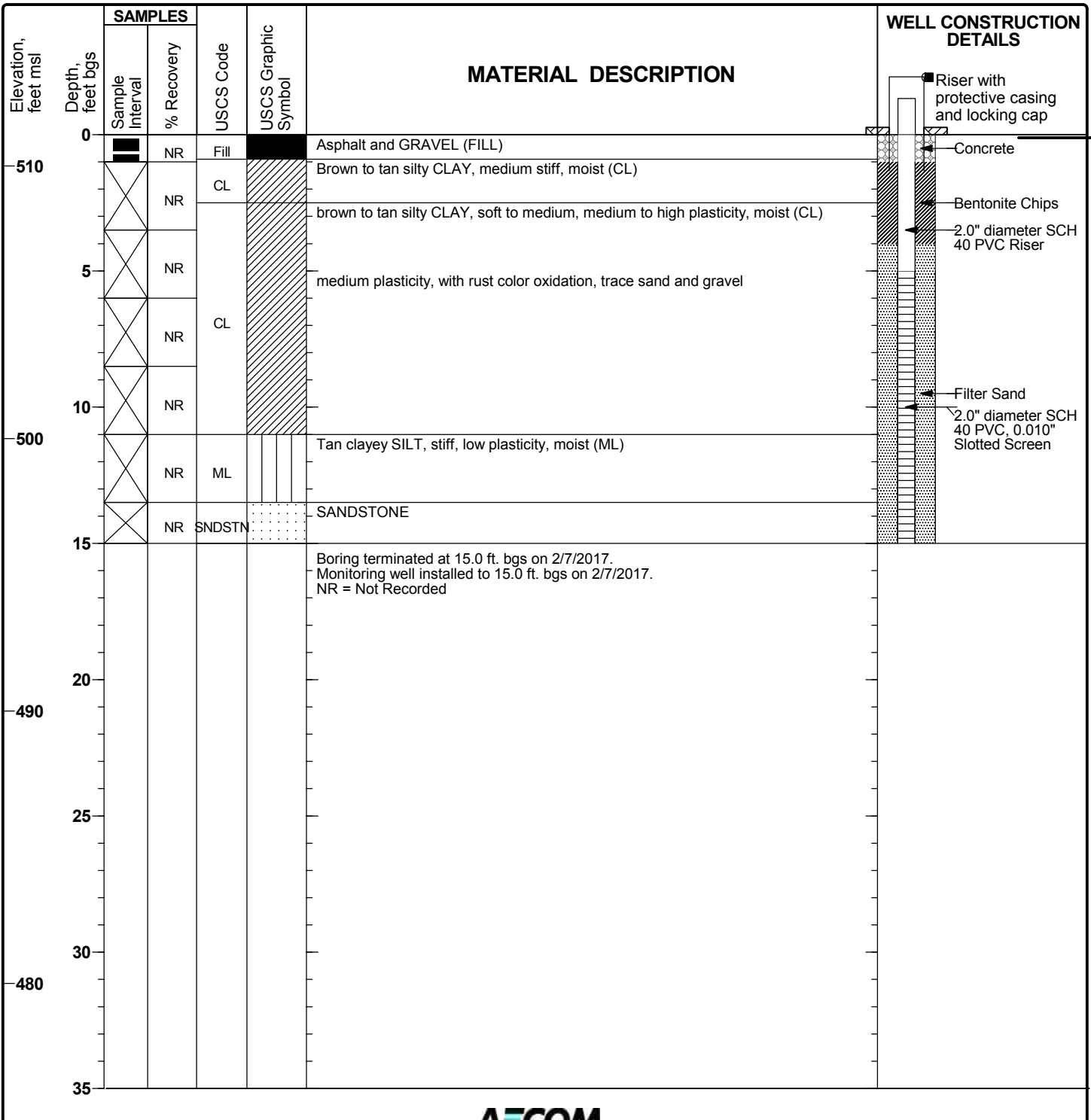
**Project Location: SIPC Marion**

**Project Number: 60535846**

# Log of EP-2

Sheet 1 of 1

Date(s) Drilled and Installed	2/7/2017	Logged By	Suzanne Dale	Reviewed By	
Drilling Method	Hollow Stem Auger	Drilling Contractor	Holcomb Engineering	Total Depth of Borehole	15.0 feet, bgs
Sampling Method	Split Spoon	Water Level TOIC	Not measured	TOC Elevation Ground Surface	513.79 ft, msl 511.15 ft, msl
Size and Type of Well Casing	2-Inch Schedule 40 PVC	Screen Perforation	0.010 - inch	Northing (Plant) Easting (Plant)	347113.029 ft 804799.408 ft
Seal or Backfill	Bentonite Chips				



SIPC MARION SIPC MARION.GPJ 10/9/17

**Client: Southern Illinois Power Cooperative**

**Project Name: SIPC Marion CCR**

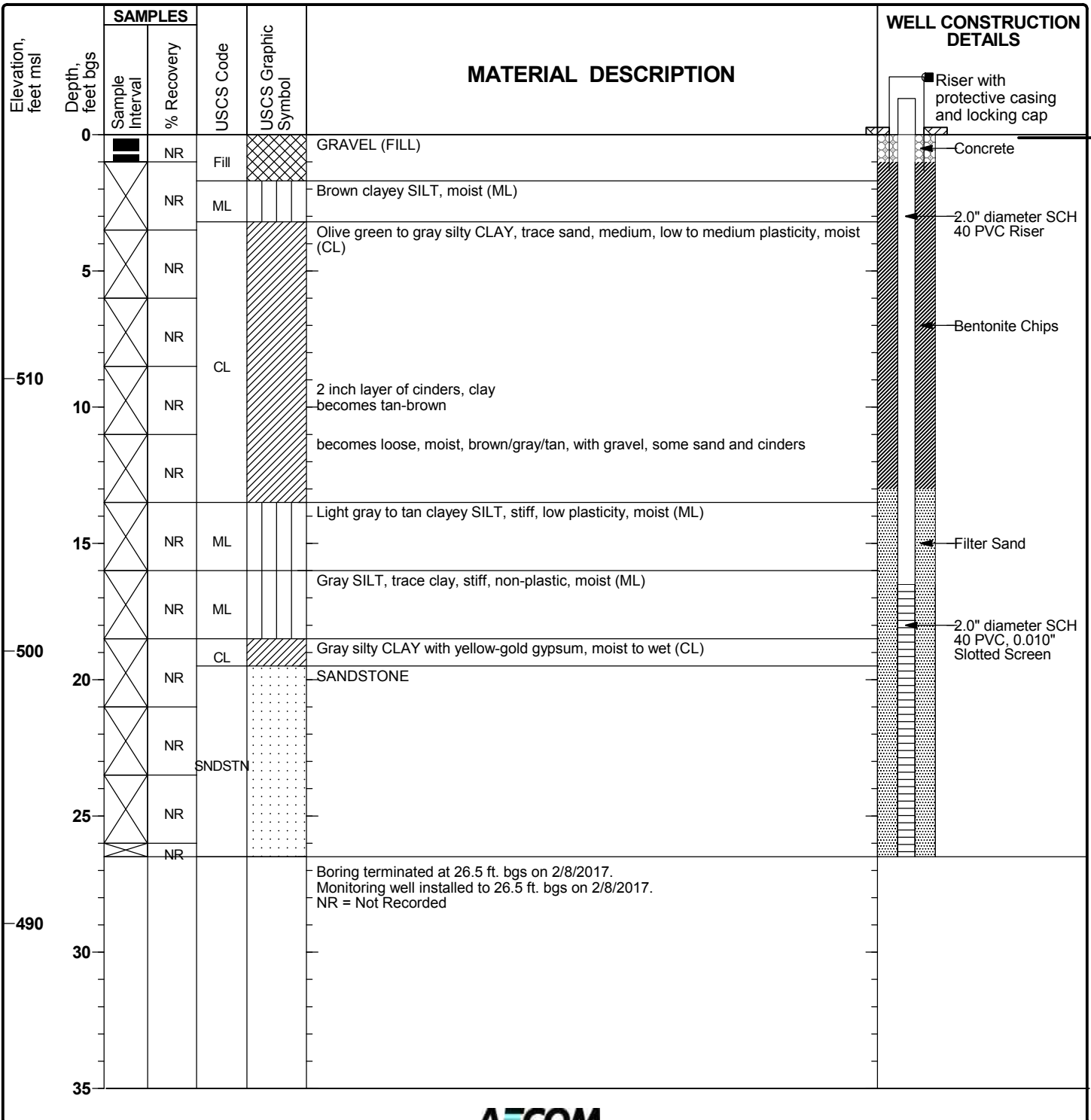
**Project Location: SIPC Marion**

**Project Number: 60535846**

# Log of EP-3

Sheet 1 of 1

Date(s) Drilled and Installed	2/8/2017	Logged By	Suzanne Dale	Reviewed By	
Drilling Method	Hollow Stem Auger	Drilling Contractor	Holcomb Engineering	Total Depth of Borehole	26.5 feet, bgs
Sampling Method	Split Spoon	Water Level TOIC	Not measured	TOC Elevation Ground Surface	518.95 ft, msl 518.95 ft, msl
Size and Type of Well Casing	2-Inch Schedule 40 PVC	Screen Perforation	0.010 - inch	Northing (Plant)	347245.08 ft
Seal or Backfill	Bentonite Chips			Easting (Plant)	804814.534 ft



SIPC MARION SIPC MARION.GPJ 10/9/17

**Client: Southern Illinois Power Cooperative**

**Project Name: SIPC Marion CCR**

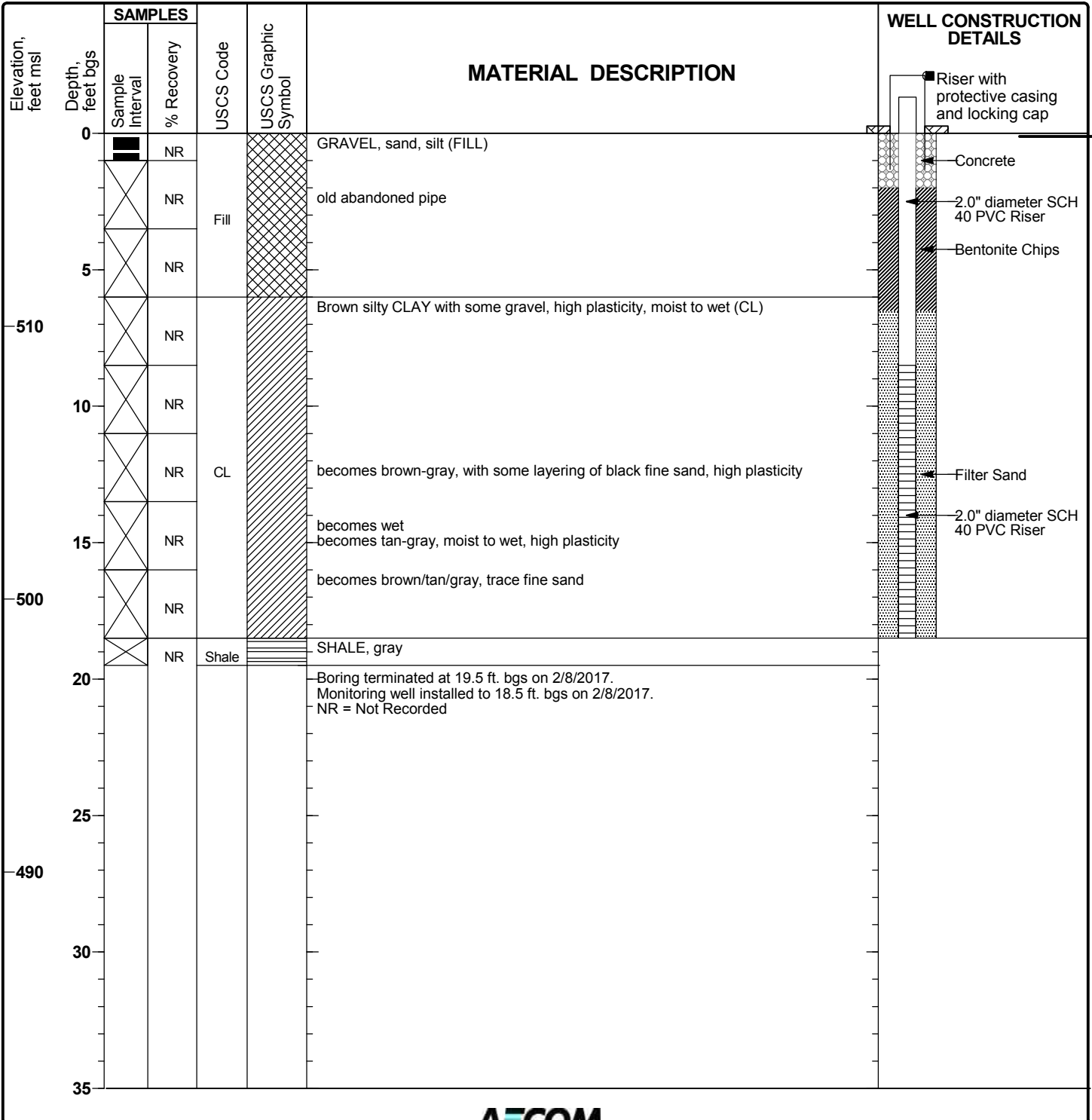
**Project Location: SIPC Marion**

**Project Number: 60535846**

# Log of EP-4

Sheet 1 of 1

Date(s) Drilled and Installed	2/8/2017	Logged By	Suzanne Dale	Reviewed By	
Drilling Method	Hollow Stem Auger	Drilling Contractor	Holcomb Engineering	Total Depth of Borehole	18.5 feet, bgs
Sampling Method	Split Spoon	Water Level TOIC	Not measured	TOC Elevation Ground Surface	519.74 ft, msl 517.07 ft, msl
Size and Type of Well Casing	2-Inch Schedule 40 PVC	Screen Perforation	0.010 - inch	Northing (Plant) Easting (Plant)	347288.297 ft 804687.527 ft
Seal or Backfill	Bentonite Chips				



SIPC MARION SIPC MARION.GPJ 10/9/17





# FIELD BORING LOG



**CLIENT:** Southern Illinois Power Cooperative  
**Site:** Storm Water Basin Monitoring Wells  
**Location:** Marion Power Station, Marion, IL  
**Project:** 21E0079

**CONTRACTOR:** Holcomb Foundation Engineering Co.  
**Rig mfg/model:** Bobcat T630 with auger attachment  
**Drilling Method:** 3/4" Hollow Stem Auger

**BOREHOLE ID:** EP-5  
**Well ID:** EP-5  
**Surface Elev:** 524.64 ft. MSL  
**Completion:** 16.32 ft. BGS  
**Station:** 347,001.63N  
 804,473.78E

**DATES:** Start: 10/5/2021  
 Finish: 10/5/2021

**FIELD STAFF:** Driller: J. Carter  
 Helper: J. Taylor

**WEATHER:** Foggy, cool (low 60's)

**Eng/Geo:** R. Hasenyager

SAMPLE			TESTING				TOPOGRAPHIC MAP INFORMATION:		WATER LEVEL INFORMATION:						
Number	Recov / Total (in) % Recovery	Type	Blows / 6 in N - Value	RQD	Water Content (%)	Dry Density (lb/ft <sup>3</sup> )	Qu (tsf) Qp (tsf)	Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks		
	0/60 0%	AGR							2	Yellowish brown (10YR5/6), moist, medium, CLAY with some silt, little sand, and trace gravel.		524			
	0/60 0%	AGR							4			522			
	0/60 0%	AGR							6			520			
	0/60 0%	AGR							8			518			
	0/60 0%	AGR							10			516			
	0/60 0%	AGR							12			514			
	0/60 0%	AGR							14			512			
	0/16 0%	AGR							16			510			
									16			Yellowish brown (10YR5/8), weathered SANDSTONE.			

EOB = 16.3 ft.

**NOTE(S):** Boring drilled adjacent to DP-4d.

# FIELD BORING LOG



**CLIENT:** Southern Illinois Power Cooperative  
**Site:** Storm Water Basin Monitoring Wells  
**Location:** Marion Power Station, Marion, IL  
**Project:** 21E0079

**CONTRACTOR:** Holcomb Foundation Engineering Co.  
**Rig mfg/model:** CME 550X  
**Drilling Method:** 3/4" Hollow Stem Auger with split spoon

**BOREHOLE ID:** EP-6  
**Well ID:** EP-6  
**Surface Elev:** 502.08 ft. MSL  
**Completion:** 13.62 ft. BGS  
**Station:** 347,034.68N  
 804,941.94E

**DATES:** Start: 10/4/2021  
 Finish: 10/4/2021

**FIELD STAFF:** Driller: J. Carter  
 Helper: J. Taylor

**WEATHER:** Sunny, mild (high 70's)

**Eng/Geo:** R. Hasenyager

SAMPLE		TESTING				TOPOGRAPHIC MAP INFORMATION:		WATER LEVEL INFORMATION:			
Number	Recov / Total (in) % Recovery	Type	Blows / 6 in N - Value RQD	Water Content (%)	Dry Density (lb/ft <sup>3</sup> )	Qu (tsf) Qp (tsf) Failure Type	Quadrangle: Goreville Township: Southern Section 26, Tier 10S; Range 2E	▽ = Dry - during drilling ▽ = 13.00 - at completion ▽ =			
							Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	0/12 0%	BD									
2A	17/24 71%	SS	5-7 7-5 N=14	18.7	3.5					500	
3A	24/36 67%	SS	2-2 4-4 N=6	24.6	1.5					498	
4A	23/24 96%	SS	1-1 4-4 N=5	20.7	3.5					496	
5A	27/36 75%	SS	7-8 13-13 N=21	12.1	4.0					494	
6A	21/21 100%	SS	4-10 27-60/3" N=37	15.0	4.0					492	
	0/10 0%	BD								490	
							▽				
EOB = 13.6 ft.											

**NOTE(S):**

# FIELD BORING LOG



**CLIENT:** Southern Illinois Power Cooperative  
**Site:** Storm Water Basin Monitoring Wells  
**Location:** Marion Power Station, Marion, IL  
**Project:** 21E0079  
**DATES:** Start: 10/4/2021  
 Finish: 10/4/2021  
**WEATHER:** Sunny, mild (low 70's)

**CONTRACTOR:** Holcomb Foundation Engineering Co.  
**Rig mfg/model:** CME 550X  
**Drilling Method:** 3/4" Hollow Stem Auger with split spoon  
**FIELD STAFF:** Driller: J. Carter  
 Helper: J. Taylor  
 Eng/Geo: R. Hasenyager

**BOREHOLE ID:** EP-7  
**Well ID:** EP-7  
**Surface Elev:** 512.49 ft. MSL  
**Completion:** 18.50 ft. BGS  
**Station:** 347,219.28N  
 804,890.26E

SAMPLE		TESTING				TOPOGRAPHIC MAP INFORMATION:		WATER LEVEL INFORMATION:			
Number	Recov / Total (in) % Recovery	Type	Blows / 6 in N - Value RQD	Water Content (%)	Dry Density (lb/ft <sup>3</sup> )	Qu (tsf) Qp (tsf) Failure Type	Depth ft. BGS	Lithologic Description	Borehole Detail	Elevation ft. MSL	Remarks
	0/12 0%	BD						Light bluish gray (5PB8/1), moist, dense, GRAVEL with some sand and some silt.		512	
2A	15/24 63%	SS	2-2 3-3 N=5	14.6	1.0		2	Black (10YR2/1), moist, loose, very fine- to coarse-grained SAND with some silt and trace gravel (Bottom Ash).		510	
3A				17.3	2.0		4	Yellowish brown (10YR5/6), moist, soft, CLAY with some silt and trace sand.		508	
4A	32/36 89%	SS	2-5 13-7 N=18				6			506	
	16/24 67%	SS	2-1 2-1 N=3	21.4	1.0		8	Grayish brown (10YR5/2) with 15% yellowish brown (10YR5/6) mottles, moist, medium CLAY with some silt, trace sand, and trace gravel.		504	
5A				21.8	1.0		10			502	
	17/36 47%	SS	1-2 2-3 N=4				12			500	
6A	15/24 63%	SS	woh-1 3-4 N=4	24.0	1.0		14	Pale brown (10YR6/3), moist, soft, SILT with few clay and trace sand.		498	
7A				26.2	0.5		16	Yellowish brown (10YR5/4), moist, soft, CLAY with some silt and trace sand.		496	
	27/36 75%	SS	1-2 2-3 N=4				18	Gray (10YR5/1), moist, soft, SILT with few clay and trace sand.		494	
8A	20/24 83%	SS	woh-1 4-5 N=5	24.3	0.5			Yellowish brown (10YR5/4), moist, soft, CLAY with some silt and trace sand.			
	0/6 0%	BD						Yellowish brown (10YR5/8), moist, dense, very fine- to medium-grained SANDSTONE.			

EOB = 18.5 ft.

NOTE(S):

**APPENDIX B**

# 2024 Groundwater Analytical Reports

January 09, 2024

Jason McLaurin  
Southern Illinois Power Cooperation  
11543 Lake of Egypt Road  
Marion, IL 62959  
TEL: (618) 964-1448  
FAX:



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Groundwater Monitoring

**WorkOrder:** 23120001

Dear Jason McLaurin:

TEKLAB, INC received 11 samples on 12/12/2023 3:32:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley  
Director of Customer Service  
(618)344-1004 ex 33  
[ehurley@teklabinc.com](mailto:ehurley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

---

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

---

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Quality Control Results	27
Receiving Check List	43
Chain of Custody	Appended

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**Cooler Receipt Temp:** 7.2 °C

An employee of Teklab, Inc. collected the sample(s).

Ra226/228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results and QC.

**Locations**

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com

**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-001

Client Sample ID: EBG

Matrix: GROUNDWATER

Collection Date: 12/11/2023 12:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		10.41	ft	1	12/11/2023 12:14	R340513
Elevation of groundwater surface	*	0	0		514.46	ft	1	12/11/2023 12:14	R340513
Measuring Point Elevation	*	0	0		524.87	ft	1	12/11/2023 12:14	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.20	gal	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		6.6	NTU	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		127	mV	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.6137	mS/cm	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		13.9	°C	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		6.30	mg/L	1	12/11/2023 12:14	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.68		1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		322	mg/L	1	12/12/2023 12:34	R340491
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		8	mg/L	1	12/12/2023 13:52	R340454
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		91	mg/L	5	12/12/2023 13:56	R340452
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.69	mg/L	1	12/15/2023 9:46	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0433	mg/L	1	12/14/2023 12:07	215858
Boron	NELAP	0.0090	0.020	J	0.0097	mg/L	1	12/14/2023 12:07	215858
Calcium	NELAP	0.0350	0.100		9.72	mg/L	1	12/14/2023 12:07	215858
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 15:47	215858
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 15:47	215858
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:47	215858
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:47	215858
Chromium	NELAP	0.0012	0.0015		< 0.0015	mg/L	5	12/14/2023 15:47	215858
Cobalt	NELAP	0.0001	0.0010	J	0.0002	mg/L	5	12/14/2023 15:47	215858
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 15:47	215858
Lithium	*	0.0015	0.0030		0.0141	mg/L	5	12/14/2023 15:47	215858
Molybdenum	NELAP	0.0006	0.0015	J	0.0010	mg/L	5	12/14/2023 15:47	215858
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 15:47	215858
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/18/2023 16:03	215858
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/13/2023 16:03	215840
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation  
**Client Project:** Groundwater Monitoring  
**Lab ID:** 23120001-001  
**Matrix:** GROUNDWATER

**Work Order:** 23120001  
**Report Date:** 09-Jan-24

**Client Sample ID:** EBG

**Collection Date:** 12/11/2023 12:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-002

Client Sample ID: EP-1

Matrix: GROUNDWATER

Collection Date: 12/11/2023 14:02

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		7.81	ft	1	12/11/2023 14:02	R340513
Elevation of groundwater surface	*	0	0		511.91	ft	1	12/11/2023 14:02	R340513
Measuring Point Elevation	*	0	0		519.72	ft	1	12/11/2023 14:02	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.90	gal	1	12/11/2023 14:02	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.6	NTU	1	12/11/2023 14:02	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		127	mV	1	12/11/2023 14:02	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.1394	mS/cm	1	12/11/2023 14:02	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		14.3	°C	1	12/11/2023 14:02	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.21	mg/L	1	12/11/2023 14:02	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.08		1	12/11/2023 14:02	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		2510	mg/L	1	12/12/2023 12:34	R340491
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		33	mg/L	1	12/12/2023 14:00	R340454
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1430	mg/L	50	12/12/2023 14:18	R340452
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.27	mg/L	1	12/15/2023 9:48	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0194	mg/L	1	12/14/2023 15:25	215858
Boron	NELAP	0.0090	0.0200		1.17	mg/L	1	12/14/2023 15:25	215858
Calcium	NELAP	0.0350	0.100		477	mg/L	1	12/14/2023 15:25	215858
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0005	mg/L	5	12/14/2023 14:15	215858
Arsenic	NELAP	0.0004	0.0010	J	0.0006	mg/L	5	12/14/2023 14:15	215858
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 14:15	215858
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 14:15	215858
Chromium	NELAP	0.0012	0.0015	J	0.0015	mg/L	5	12/14/2023 14:15	215858
Cobalt	NELAP	0.0001	0.0010	J	0.0005	mg/L	5	12/14/2023 14:15	215858
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 14:15	215858
Lithium	*	0.0015	0.0030		0.0143	mg/L	5	12/14/2023 14:15	215858
Molybdenum	NELAP	0.0006	0.0015	J	0.0008	mg/L	5	12/14/2023 14:15	215858
Selenium	NELAP	0.0006	0.0010		0.0024	mg/L	5	12/14/2023 14:15	215858
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/18/2023 15:39	215858
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/13/2023 16:06	215840
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation  
**Client Project:** Groundwater Monitoring  
**Lab ID:** 23120001-002  
**Matrix:** GROUNDWATER

**Work Order:** 23120001  
**Report Date:** 09-Jan-24

**Client Sample ID:** EP-1

**Collection Date:** 12/11/2023 14:02

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-003

Client Sample ID: EP-2

Matrix: GROUNDWATER

Collection Date: 12/12/2023 12:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		11.65	ft	1	12/12/2023 12:20	R340513
Elevation of groundwater surface	*	0	0		502.14	ft	1	12/12/2023 12:20	R340513
Measuring Point Elevation	*	0	0		513.79	ft	1	12/12/2023 12:20	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.80	gal	1	12/12/2023 12:20	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		5.0	NTU	1	12/12/2023 12:20	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		88	mV	1	12/12/2023 12:20	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		3.249	mS/cm	1	12/12/2023 12:20	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		16.9	°C	1	12/12/2023 12:20	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.82	mg/L	1	12/12/2023 12:20	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.23		1	12/12/2023 12:20	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		2270	mg/L	1	12/13/2023 13:19	R340566
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	2	20		62	mg/L	5	12/14/2023 9:45	R340532
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1260	mg/L	50	12/13/2023 20:34	R340498
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.33	mg/L	1	12/15/2023 9:50	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0213	mg/L	1	12/14/2023 9:53	215892
Boron	NELAP	0.0090	0.0200		0.274	mg/L	1	12/14/2023 9:53	215892
Calcium	NELAP	0.0350	0.100		293	mg/L	1	12/14/2023 9:53	215892
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/15/2023 12:29	215892
Arsenic	NELAP	0.0004	0.0010		0.0029	mg/L	5	12/14/2023 13:09	215892
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 13:09	215892
Cadmium	NELAP	0.0002	0.0010	J	0.0009	mg/L	5	12/14/2023 13:09	215892
Chromium	NELAP	0.0007	0.0015	J	0.0009	mg/L	5	12/15/2023 12:29	215892
Cobalt	NELAP	0.0001	0.0010		0.0467	mg/L	5	12/14/2023 13:09	215892
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 13:09	215892
Lithium	*	0.0015	0.0030		0.0153	mg/L	5	12/14/2023 13:09	215892
Molybdenum	NELAP	0.0006	0.0015		0.0017	mg/L	5	12/19/2023 9:44	215892
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/19/2023 9:44	215892
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/14/2023 13:09	215892
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/14/2023 11:26	215912
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation  
**Client Project:** Groundwater Monitoring  
**Lab ID:** 23120001-003  
**Matrix:** GROUNDWATER

**Work Order:** 23120001  
**Report Date:** 09-Jan-24

**Client Sample ID:** EP-2

**Collection Date:** 12/12/2023 12:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		<b>See Attached</b>	pci/L	1	12/28/2023 13:45	R341448





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-004

Client Sample ID: EP-3

Matrix: GROUNDWATER

Collection Date: 12/12/2023 10:26

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		18.30	ft	1	12/12/2023 10:26	R340513
Elevation of groundwater surface	*	0	0		500.65	ft	1	12/12/2023 10:26	R340513
Measuring Point Elevation	*	0	0		518.95	ft	1	12/12/2023 10:26	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.10	gal	1	12/12/2023 10:26	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		5.6	NTU	1	12/12/2023 10:26	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		15	mV	1	12/12/2023 10:26	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.6227	mS/cm	1	12/12/2023 10:26	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.2	°C	1	12/12/2023 10:26	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.68	mg/L	1	12/12/2023 10:26	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.08		1	12/12/2023 10:26	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		685	mg/L	2.5	12/13/2023 13:19	R340566
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	5	40		148	mg/L	10	12/13/2023 20:37	R340501
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	61	100		128	mg/L	10	12/13/2023 20:37	R340498
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.22	mg/L	1	12/15/2023 9:52	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0825	mg/L	1	12/14/2023 9:54	215892
Boron	NELAP	0.0090	0.0200		0.0724	mg/L	1	12/14/2023 9:54	215892
Calcium	NELAP	0.0350	0.100		43.4	mg/L	1	12/14/2023 9:54	215892
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/15/2023 12:35	215892
Arsenic	NELAP	0.0004	0.0010		0.0116	mg/L	5	12/14/2023 13:15	215892
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 13:15	215892
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 13:15	215892
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	12/15/2023 12:35	215892
Cobalt	NELAP	0.0001	0.0010		0.120	mg/L	5	12/14/2023 13:15	215892
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 13:15	215892
Lithium	*	0.0015	0.0030		0.0555	mg/L	5	12/14/2023 13:15	215892
Molybdenum	NELAP	0.0006	0.0015	J	0.0008	mg/L	5	12/14/2023 13:15	215892
Selenium	NELAP	0.0006	0.0010	J	0.0008	mg/L	5	12/14/2023 13:15	215892
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/14/2023 13:15	215892
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/14/2023 11:29	215912
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation  
**Client Project:** Groundwater Monitoring  
**Lab ID:** 23120001-004  
**Matrix:** GROUNDWATER

**Work Order:** 23120001  
**Report Date:** 09-Jan-24

**Client Sample ID:** EP-3

**Collection Date:** 12/12/2023 10:26

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-005

Client Sample ID: EP-4

Matrix: GROUNDWATER

Collection Date: 12/12/2023 12:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		9.23	ft	1	12/12/2023 12:45	R340513
Elevation of groundwater surface	*	0	0		510.51	ft	1	12/12/2023 12:45	R340513
Measuring Point Elevation	*	0	0		519.74	ft	1	12/12/2023 12:45	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.60	gal	1	12/12/2023 12:45	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		8.7	NTU	1	12/12/2023 12:45	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-33	mV	1	12/12/2023 12:45	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.1873	mS/cm	1	12/12/2023 12:45	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		19.0	°C	1	12/12/2023 12:45	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.70	mg/L	1	12/12/2023 12:45	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.83		1	12/12/2023 12:45	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		1510	mg/L	2.5	12/13/2023 13:20	R340566
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	25	200		447	mg/L	50	12/13/2023 20:43	R340501
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	123	200		442	mg/L	20	12/14/2023 13:58	R340579
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.11	mg/L	1	12/15/2023 9:54	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0335	mg/L	1	12/14/2023 9:56	215892
Boron	NELAP	0.0090	0.0200		11.2	mg/L	1	12/14/2023 9:56	215892
Calcium	NELAP	0.0350	0.100		157	mg/L	1	12/14/2023 9:56	215892
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/15/2023 12:41	215892
Arsenic	NELAP	0.0004	0.0010		0.0083	mg/L	5	12/14/2023 13:21	215892
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 13:21	215892
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 13:21	215892
Chromium	NELAP	0.0007	0.0015		0.0383	mg/L	5	12/15/2023 12:41	215892
Cobalt	NELAP	0.0001	0.0010		0.345	mg/L	5	12/14/2023 13:21	215892
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 13:21	215892
Lithium	*	0.0015	0.0030		0.0031	mg/L	5	12/14/2023 13:21	215892
Molybdenum	NELAP	0.0006	0.0015	J	0.0007	mg/L	5	12/14/2023 13:21	215892
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	12/14/2023 13:21	215892
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/14/2023 13:21	215892
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/14/2023 11:32	215912
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**Lab ID:** 23120001-005

**Client Sample ID:** EP-4

**Matrix:** GROUNDWATER

**Collection Date:** 12/12/2023 12:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 23120001-006  
 Matrix: GROUNDWATER

Work Order: 23120001  
 Report Date: 09-Jan-24

Client Sample ID: EP-5

Collection Date: 12/11/2023 13:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		15.23	ft	1	12/11/2023 13:25	R340513
Elevation of groundwater surface	*	0	0		512.36	ft	1	12/11/2023 13:25	R340513
Measuring Point Elevation	*	0	0		527.59	ft	1	12/11/2023 13:25	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.30	gal	1	12/11/2023 13:25	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		5.0	NTU	1	12/11/2023 13:25	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		110	mV	1	12/11/2023 13:25	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.4982	mS/cm	1	12/11/2023 13:25	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		15.0	°C	1	12/11/2023 13:25	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		6.50	mg/L	1	12/11/2023 13:25	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.66		1	12/11/2023 13:25	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		264	mg/L	1	12/12/2023 12:34	R340491
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4	J	3	mg/L	1	12/12/2023 14:21	R340454
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		104	mg/L	5	12/12/2023 14:26	R340452
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.45	mg/L	1	12/15/2023 9:57	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0434	mg/L	1	12/14/2023 19:06	215858
Boron	NELAP	0.0090	0.020	J	0.014	mg/L	1	12/14/2023 19:06	215858
Calcium	NELAP	0.0350	0.100		13.5	mg/L	1	12/14/2023 19:06	215858
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0006	mg/L	5	12/14/2023 15:35	215858
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 15:35	215858
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:35	215858
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:35	215858
Chromium	NELAP	0.0012	0.0015		0.0040	mg/L	5	12/14/2023 15:35	215858
Cobalt	NELAP	0.0001	0.0010	J	0.0008	mg/L	5	12/14/2023 15:35	215858
Lead	NELAP	0.0006	0.0010	J	0.0006	mg/L	5	12/14/2023 15:35	215858
Lithium	*	0.0015	0.0030	J	0.0029	mg/L	5	12/14/2023 15:35	215858
Molybdenum	NELAP	0.0006	0.0015		0.0022	mg/L	5	12/14/2023 15:35	215858
Selenium	NELAP	0.0006	0.0010	J	0.0008	mg/L	5	12/14/2023 15:35	215858
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/18/2023 15:45	215858
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/13/2023 16:08	215840
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**Lab ID:** 23120001-006

**Client Sample ID:** EP-5

**Matrix:** GROUNDWATER

**Collection Date:** 12/11/2023 13:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 23120001-007  
 Matrix: GROUNDWATER

Work Order: 23120001  
 Report Date: 09-Jan-24

Client Sample ID: EP-6

Collection Date: 12/11/2023 12:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		5.07	ft	1	12/11/2023 12:00	R340513
Elevation of groundwater surface	*	0	0		500.04	ft	1	12/11/2023 12:00	R340513
Measuring Point Elevation	*	0	0		505.11	ft	1	12/11/2023 12:00	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.80	gal	1	12/11/2023 12:00	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.5	NTU	1	12/11/2023 12:00	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		169	mV	1	12/11/2023 12:00	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.2361	mS/cm	1	12/11/2023 12:00	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		14.3	°C	1	12/11/2023 12:00	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		4.17	mg/L	1	12/11/2023 12:00	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		4.80		1	12/11/2023 12:00	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		222	mg/L	1	12/12/2023 12:35	R340491
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		21	mg/L	1	12/12/2023 14:29	R340454
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	12	20		56	mg/L	2	12/12/2023 14:34	R340452
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10	J	0.07	mg/L	1	12/15/2023 10:06	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0340	mg/L	1	12/14/2023 19:07	215858
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	12/14/2023 19:07	215858
Calcium	NELAP	0.0350	0.100		1.43	mg/L	1	12/14/2023 19:07	215858
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 15:41	215858
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 15:41	215858
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:41	215858
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:41	215858
Chromium	NELAP	0.0012	0.0015		0.0027	mg/L	5	12/14/2023 15:41	215858
Cobalt	NELAP	0.0001	0.0010		0.0020	mg/L	5	12/18/2023 15:51	215858
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 15:41	215858
Lithium	*	0.0015	0.0030		0.0101	mg/L	5	12/14/2023 15:41	215858
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	12/14/2023 15:41	215858
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 15:41	215858
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/18/2023 15:51	215858
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/13/2023 16:21	215840
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**Lab ID:** 23120001-007

**Client Sample ID:** EP-6

**Matrix:** GROUNDWATER

**Collection Date:** 12/11/2023 12:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 23120001-008  
 Matrix: GROUNDWATER

Work Order: 23120001  
 Report Date: 09-Jan-24

Client Sample ID: EP-7

Collection Date: 12/12/2023 11:23

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		15.13	ft	1	12/12/2023 11:23	R340513
Elevation of groundwater surface	*	0	0		500.31	ft	1	12/12/2023 11:23	R340513
Measuring Point Elevation	*	0	0		515.44	ft	1	12/12/2023 11:23	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.50	gal	1	12/12/2023 11:23	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		5.6	NTU	1	12/12/2023 11:23	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		25	mV	1	12/12/2023 11:23	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1.7694	mS/cm	1	12/12/2023 11:23	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.2	°C	1	12/12/2023 11:23	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.10	mg/L	1	12/12/2023 11:23	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.50		1	12/12/2023 11:23	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		820	mg/L	2.5	12/13/2023 13:20	R340566
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	5	40		240	mg/L	10	12/13/2023 20:45	R340501
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	61	100		161	mg/L	10	12/13/2023 20:45	R340498
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.12	mg/L	1	12/15/2023 10:08	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0422	mg/L	1	12/14/2023 9:58	215892
Boron	NELAP	0.0090	0.0200		0.412	mg/L	1	12/14/2023 9:58	215892
Calcium	NELAP	0.0350	0.100		44.4	mg/L	1	12/14/2023 9:58	215892
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/15/2023 14:00	215892
Arsenic	NELAP	0.0004	0.0010		0.0113	mg/L	5	12/14/2023 14:40	215892
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 14:40	215892
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 14:40	215892
Chromium	NELAP	0.0007	0.0015		0.0034	mg/L	5	12/18/2023 16:59	215892
Cobalt	NELAP	0.0001	0.0010		0.235	mg/L	5	12/14/2023 14:40	215892
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 14:40	215892
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	12/14/2023 14:40	215892
Molybdenum	NELAP	0.0006	0.0015	J	0.0013	mg/L	5	12/14/2023 14:40	215892
Selenium	NELAP	0.0006	0.0010		0.0016	mg/L	5	12/14/2023 14:40	215892
Thallium	NELAP	0.0010	0.0020		0.0030	mg/L	5	12/14/2023 14:40	215892
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/14/2023 11:34	215912
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**Lab ID:** 23120001-008

**Client Sample ID:** EP-7

**Matrix:** GROUNDWATER

**Collection Date:** 12/12/2023 11:23

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	12/28/2023 13:45	R341448



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-009

Client Sample ID: Equipment Blank

Matrix: AQUEOUS

Collection Date: 12/12/2023 12:25

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	12/15/2023 8:54	R340683
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4	J	1	mg/L	1	12/13/2023 20:51	R340501
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	6	10		< 10	mg/L	1	12/13/2023 20:50	R340498
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10	J	0.05	mg/L	1	12/15/2023 11:19	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	12/14/2023 9:59	215892
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	12/14/2023 9:59	215892
Calcium	NELAP	0.035	0.10	J	0.063	mg/L	1	12/18/2023 11:18	215892
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/15/2023 14:06	215892
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 14:47	215892
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 14:47	215892
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 14:47	215892
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	12/18/2023 17:05	215892
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	12/14/2023 14:47	215892
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 14:47	215892
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	12/14/2023 14:47	215892
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	12/14/2023 14:47	215892
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 14:47	215892
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/14/2023 14:47	215892
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/14/2023 11:36	215912
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	01/02/2024 14:32	R341448
Radium-228	*	0	0		See Attached	pci/L	1	01/02/2024 14:32	R341448





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-010

Client Sample ID: Field Blank

Matrix: AQUEOUS

Collection Date: 12/12/2023 12:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	12/13/2023 13:21	R340566
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		< 4	mg/L	1	12/13/2023 20:53	R340501
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	6	10		< 10	mg/L	1	12/13/2023 20:53	R340498
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	12/15/2023 10:10	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	12/14/2023 10:01	215892
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	12/14/2023 10:01	215892
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	12/14/2023 10:01	215892
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/15/2023 14:13	215892
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 15:36	215892
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:36	215892
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 15:36	215892
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	12/18/2023 17:11	215892
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	12/14/2023 15:36	215892
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 15:36	215892
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	12/14/2023 15:36	215892
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	12/14/2023 15:36	215892
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 15:36	215892
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/14/2023 15:36	215892
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/14/2023 11:49	215912
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	01/02/2024 14:32	R341448
Radium-228	*	0	0		See Attached	pci/L	1	01/02/2024 14:32	R341448



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Lab ID: 23120001-011

Client Sample ID: Field Duplicate

Matrix: GROUNDWATER

Collection Date: 12/11/2023 12:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		10.41	ft	1	12/11/2023 12:14	R340513
Elevation of groundwater surface	*	0	0		514.46	ft	1	12/11/2023 12:14	R340513
Measuring Point Elevation	*	0	0		524.87	ft	1	12/11/2023 12:14	R340513
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.20	gal	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		6.6	NTU	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		127	mV	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.6137	mS/cm	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		13.9	°C	1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		6.30	mg/L	1	12/11/2023 12:14	R340513
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.68		1	12/11/2023 12:14	R340513
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		315	mg/L	2.5	12/12/2023 12:35	R340491
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		8	mg/L	1	12/12/2023 14:37	R340454
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		91	mg/L	5	12/12/2023 14:42	R340452
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.67	mg/L	1	12/15/2023 10:13	R340563
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0457	mg/L	1	12/14/2023 19:09	215858
Boron	NELAP	0.0090	0.020	J	0.0093	mg/L	1	12/14/2023 19:09	215858
Calcium	NELAP	0.0350	0.100		9.67	mg/L	1	12/14/2023 19:09	215858
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/18/2023 15:57	215858
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	12/14/2023 16:27	215858
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 16:27	215858
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	12/14/2023 16:27	215858
Chromium	NELAP	0.0012	0.0015		< 0.0015	mg/L	5	12/14/2023 16:27	215858
Cobalt	NELAP	0.0001	0.0010	J	0.0003	mg/L	5	12/14/2023 16:27	215858
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	12/14/2023 16:27	215858
Lithium	*	0.0015	0.0030		0.0141	mg/L	5	12/14/2023 16:27	215858
Molybdenum	NELAP	0.0006	0.0015	J	0.0015	mg/L	5	12/14/2023 16:27	215858
Selenium	NELAP	0.0006	0.0010	J	0.0010	mg/L	5	12/14/2023 16:27	215858
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	12/18/2023 15:57	215858
<i>PQL recovered outside upper control limits for Sb. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>									
<i>Contamination present in the CCB for Sb. Sample results below the reporting limit are reportable per the TNI Standard.</i>									
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	12/13/2023 16:24	215840



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**Lab ID:** 23120001-011

**Client Sample ID:** Field Duplicate

**Matrix:** GROUNDWATER

**Collection Date:** 12/11/2023 12:14

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	01/02/2024 14:32	R341448
Radium-228	*	0	0		See Attached	pci/L	1	01/02/2024 14:32	R341448







## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### SW-846 9040B FIELD

Batch R340513		SampType: LCS		Units							Date Analyzed
SampID: LCS-R340513-4											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
pH	*	1.00		<b>7.03</b>	7.000	0	100.4	98.57	101.4	12/12/2023	

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R340491		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	12/12/2023	

Batch R340491		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>904</b>	1000	0	90.4	90	110	12/12/2023	

Batch R340491		SampType: DUP		Units mg/L		RPD Limit 10					Date Analyzed
SampID: 23120001-011ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Total Dissolved Solids		50		<b>320</b>				315.0	1.57	12/12/2023	

Batch R340566		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	12/13/2023	

Batch R340566		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>982</b>	1000	0	98.2	90	110	12/13/2023	

Batch R340566		SampType: DUP		Units mg/L		RPD Limit 10					Date Analyzed
SampID: 23120001-010ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Total Dissolved Solids		20		<b>&lt; 20</b>				0	0.00	12/13/2023	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R340683		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	12/15/2023	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	12/15/2023	

Batch R340683		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		934	1000	0	93.4	90	110	12/15/2023	
Total Dissolved Solids		20		940	1000	0	94.0	90	110	12/15/2023	

Batch R340683		SampType: DUP		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23110002-062ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		50	H	880				915.0	3.90	12/15/2023		

Batch R340683		SampType: DUP		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23121193-002BDUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Total Dissolved Solids		20		544				494.0	9.63	12/15/2023		

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R340454		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	12/12/2023	

Batch R340454		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		20	20.00	0	99.7	90	110	12/12/2023	

Batch R340454		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120637-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4000		26000	20000	8289	88.5	85	115	12/12/2023	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R340454		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 23120637-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4000		<b>26400</b>	20000	8289	90.5	25980	1.52	12/12/2023	

Batch R340501		SampType: MBLK		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICB/MBLK												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Chloride		4		< 4	0.5000	0	0	-100	100	12/13/2023		

Batch R340501		SampType: LCS		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICB/LCS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Chloride		4		<b>20</b>	20.00	0	101.0	90	110	12/13/2023		

Batch R340501		SampType: MS		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: 23120958-001AMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Chloride		200		<b>1420</b>	1000	475.7	94.8	85	115	12/13/2023		

Batch R340501		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 23120958-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		200		<b>1430</b>	1000	475.7	95.0	1424	0.13	12/13/2023	

Batch R340501		SampType: MS		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: 23120987-002AMS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Chloride		40		<b>380</b>	200.0	204.0	88.1	85	115	12/13/2023		

Batch R340501		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 23120987-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		40		<b>380</b>	200.0	204.0	88.0	380.3	0.07	12/13/2023	

Batch R340532		SampType: MBLK		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICB/MBLK												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Chloride		4		< 4	0.5000	0	0	-100	100	12/14/2023		





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R340532		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>20</b>	20.00	0	100.4	90	110	12/14/2023	

Batch R340532		SampType: MS		Units mg/L							
SampID: 23121014-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>27</b>	20.00	9.200	89.7	85	115	12/14/2023	

Batch R340532		SampType: MSD		Units mg/L							
SampID: 23121014-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		<b>27</b>	20.00	9.200	91.4	27.13	1.25	12/14/2023	

Batch R340532		SampType: MS		Units mg/L							
SampID: 23121014-007AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>37</b>	20.00	19.01	88.0	85	115	12/14/2023	

Batch R340532		SampType: MSD		Units mg/L							
SampID: 23121014-007AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4		<b>37</b>	20.00	19.01	88.9	36.60	0.52	12/14/2023	

### SW-846 9036 (TOTAL)

Batch R340452		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	12/12/2023	

Batch R340452		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>19</b>	20.00	0	93.6	90	110	12/12/2023	



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**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

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**SW-846 9036 (TOTAL)**

Batch R340452		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120502-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		2000		<b>9300</b>	4000	5821	86.9	85	115	12/12/2023	

Batch R340452		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23120502-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		2000		<b>9600</b>	4000	5821	94.4	9295	3.19	12/12/2023		

Batch R340452		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120637-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		1000	SE	<b>5480</b>	2000	4158	66.2	90	110	12/12/2023	

Batch R340452		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23120637-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		1000	SE	<b>5500</b>	2000	4158	67.1	5483	0.33	12/12/2023		

Batch R340452		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120667-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		<b>210</b>	100.0	124.4	85.7	85	115	12/12/2023	

Batch R340452		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23120667-002BMDS												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50		<b>214</b>	100.0	124.4	89.8	210.1	1.92	12/12/2023		

Batch R340498		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	12/13/2023	

Batch R340498		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>19</b>	20.00	0	96.0	90	110	12/13/2023	



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**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

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**SW-846 9036 (TOTAL)**

Batch R340498		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120598-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50	S	<b>246</b>	100.0	168.0	78.2	90	110	12/13/2023	

Batch R340498		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23120598-001CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50	S	<b>246</b>	100.0	168.0	78.0	246.2	0.07	12/13/2023		

Batch R340579		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	12/14/2023	

Batch R340579		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>19</b>	20.00	0	94.0	90	110	12/14/2023	

Batch R340579		SampType: MS		Units mg/L							Date Analyzed
SampID: 23121014-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		<b>289</b>	200.0	117.9	85.8	85	115	12/14/2023	

Batch R340579		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23121014-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		<b>295</b>	200.0	117.9	88.4	289.5	1.75	12/14/2023		

Batch R340579		SampType: MS		Units mg/L							Date Analyzed
SampID: 23121014-007AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		<b>354</b>	200.0	169.2	92.2	85	115	12/14/2023	

Batch R340579		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 23121014-007AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		<b>351</b>	200.0	169.2	90.9	353.6	0.72	12/14/2023		



## Quality Control Results

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**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**SW-846 9214 (TOTAL)**

Batch R340563		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0500	0	0	-100	100	12/14/2023	

Batch R340563		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		1.00	1.000	0	100.0	90	110	12/14/2023	

Batch R340563		SampType: MS		Units mg/L							
SampID: 23120637-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		1.00		25.6	20.00	6.430	95.9	75	125	12/15/2023	

Batch R340563		SampType: MSD		Units mg/L							
SampID: 23120637-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		1.00		26.9	20.00	6.430	102.4	25.61	4.95	12/15/2023	

Batch R340563		SampType: MS		Units mg/L							
SampID: 23120667-017AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.33	2.000	0.1860	107.4	75	125	12/15/2023	

Batch R340563		SampType: MSD		Units mg/L							
SampID: 23120667-017AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.17	2.000	0.1860	99.3	2.334	7.19	12/15/2023	

Batch R340563		SampType: MS		Units mg/L							
SampID: 23120667-020AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		2.30	2.000	0.2460	102.9	75	125	12/15/2023	

Batch R340563		SampType: MSD		Units mg/L							
SampID: 23120667-020AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		2.37	2.000	0.2460	106.2	2.304	2.78	12/15/2023	





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**SW-846 9214 (TOTAL)**

Batch R340563		SampType: MS		Units mg/L							Date Analyzed
SampID: 23121014-008AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>2.10</b>	2.000	0	105.0	75	125	12/15/2023	

Batch R340563		SampType: MSD		Units mg/L		RPD Limit 15					Date Analyzed
SampID: 23121014-008AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		<b>2.10</b>	2.000	0	104.8	2.100	0.24	12/15/2023	

Batch R340563		SampType: MS		Units mg/L							Date Analyzed
SampID: 23121094-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>2.28</b>	2.000	0.2000	104.0	75	125	12/14/2023	

Batch R340563		SampType: MSD		Units mg/L		RPD Limit 15					Date Analyzed
SampID: 23121094-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		<b>2.26</b>	2.000	0.2000	103.0	2.279	0.79	12/14/2023	

Batch R340563		SampType: MS		Units mg/L							Date Analyzed
SampID: 23121112-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>3.01</b>	2.000	0.8810	106.5	75	125	12/15/2023	

Batch R340563		SampType: MSD		Units mg/L		RPD Limit 15					Date Analyzed
SampID: 23121112-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		<b>3.04</b>	2.000	0.8810	108.0	3.011	0.96	12/15/2023	

Batch R340563		SampType: MS		Units mg/L							Date Analyzed
SampID: 23121247-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>2.41</b>	2.000	0.2990	105.5	75	125	12/15/2023	

Batch R340563		SampType: MSD		Units mg/L		RPD Limit 15					Date Analyzed
SampID: 23121247-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
Fluoride		0.10		<b>2.43</b>	2.000	0.2990	106.8	2.409	1.03	12/15/2023	



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**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

**Batch 215858**      **SampType: MBLK**      Units mg/L

SampID: MBLK-215858

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.0250		< 0.0250	0.0087	0	0	-100	100	12/14/2023
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	12/14/2023
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	12/14/2023
Cadmium		0.0020		< 0.0020	0.0005	0	0	-100	100	12/18/2023
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	12/14/2023
Chromium		0.0050		< 0.0050	0.0028	0	0	-100	100	12/14/2023
Lead		0.0150		< 0.0150	0.0040	0	0	-100	100	12/14/2023
Selenium		0.0400		< 0.0400	0.0170	0	0	-100	100	12/14/2023

**Batch 215858**      **SampType: LCS**      Units mg/L

SampID: LCS-215858

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Arsenic		0.0250		0.477	0.5000	0	95.3	85	115	12/14/2023
Barium		0.0025		1.91	2.000	0	95.5	85	115	12/14/2023
Boron		0.0200		0.457	0.5000	0	91.3	85	115	12/14/2023
Cadmium		0.0020		0.0483	0.0500	0	96.6	85	115	12/18/2023
Calcium		0.100		2.46	2.500	0	98.3	85	115	12/14/2023
Chromium		0.0050		0.179	0.2000	0	89.4	85	115	12/14/2023
Lead		0.0150		0.445	0.5000	0	89.0	85	115	12/14/2023
Selenium		0.0400		0.474	0.5000	0	94.7	85	115	12/14/2023

**Batch 215858**      **SampType: MS**      Units mg/L

SampID: 23120001-001CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		1.99	2.000	0.04330	97.6	75	125	12/14/2023
Boron		0.0200		0.486	0.5000	0.009700	95.3	75	125	12/14/2023
Calcium		0.100		12.7	2.500	9.720	118.0	75	125	12/14/2023

**Batch 215858**      **SampType: MSD**      Units mg/L

RPD Limit 20

SampID: 23120001-001CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Barium		0.0025		1.97	2.000	0.04330	96.3	1.995	1.26	12/14/2023
Boron		0.0200		0.478	0.5000	0.009700	93.7	0.4861	1.66	12/14/2023
Calcium		0.100		12.3	2.500	9.720	104.4	12.67	2.72	12/14/2023



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**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

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### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 215858		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120895-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.44</b>	2.000	0.3755	103.1	75	125	12/14/2023	

Batch 215858		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 23120895-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Barium		0.0025		<b>2.27</b>	2.000	0.3755	94.6	2.437	7.22	12/14/2023		

Batch 215892		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-215892											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Arsenic		0.0250		< <b>0.0250</b>	0.0087	0	0	-100	100	12/14/2023	
Barium		0.0025		< <b>0.0025</b>	0.0007	0	0	-100	100	12/14/2023	
Boron		0.0200		< <b>0.0200</b>	0.0090	0	0	-100	100	12/14/2023	
Calcium		0.100		< <b>0.100</b>	0.0350	0	0	-100	100	12/14/2023	
Chromium		0.0050		< <b>0.0050</b>	0.0028	0	0	-100	100	12/14/2023	
Lead		0.0150		< <b>0.0150</b>	0.0040	0	0	-100	100	12/14/2023	
Selenium		0.0400		< <b>0.0400</b>	0.0170	0	0	-100	100	12/14/2023	

Batch 215892		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-215892											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Arsenic		0.0250		<b>0.553</b>	0.5000	0	110.6	85	115	12/14/2023	
Barium		0.0025		<b>2.09</b>	2.000	0	104.5	85	115	12/14/2023	
Boron		0.0200		<b>0.527</b>	0.5000	0	105.4	85	115	12/14/2023	
Calcium		0.100		<b>2.75</b>	2.500	0	110.1	85	115	12/14/2023	
Chromium		0.0050		<b>0.208</b>	0.2000	0	104.1	85	115	12/14/2023	
Lead		0.0150		<b>0.522</b>	0.5000	0	104.5	85	115	12/14/2023	
Selenium		0.0400		<b>0.534</b>	0.5000	0	106.8	85	115	12/14/2023	

Batch 215892		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120949-054AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Cadmium		0.0020		<b>0.0498</b>	0.0500	0	99.6	75	125	12/18/2023	



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**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 215892		SampType: MSD		Units mg/L			RPD Limit 20			
SampID: 23120949-054AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Cadmium		0.0020		<b>0.0494</b>	0.0500	0	98.8	0.04980	0.81	12/18/2023

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 215858		SampType: MBLK		Units mg/L						
SampID: MBLK-215858										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	12/14/2023
Arsenic		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	12/14/2023
Beryllium		0.0010		< <b>0.0010</b>	0.0002	0	0	-100	100	12/14/2023
Cadmium		0.0010		< <b>0.0010</b>	0.0001	0	0	-100	100	12/14/2023
Chromium		0.0015		< <b>0.0015</b>	0.0007	0	0	-100	100	12/14/2023
Cobalt		0.0010		< <b>0.0010</b>	0.0001	0	0	-100	100	12/14/2023
Lead		0.0010		< <b>0.0010</b>	0.0006	0	0	-100	100	12/14/2023
Lithium	*	0.0030		< <b>0.0030</b>	0.0015	0	0	-100	100	12/14/2023
Molybdenum		0.0015		< <b>0.0015</b>	0.0006	0	0	-100	100	12/14/2023
Selenium		0.0010		< <b>0.0010</b>	0.0006	0	0	-100	100	12/14/2023
Thallium		0.0020		< <b>0.0020</b>	0.0010	0	0	-100	100	12/15/2023

### Batch 215858 SampType: LCS Units mg/L

SampID: LCS-215858										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.505</b>	0.5000	0	101.1	80	120	12/14/2023
Arsenic		0.0010		<b>0.540</b>	0.5000	0	108.0	80	120	12/14/2023
Beryllium		0.0010		<b>0.0514</b>	0.0500	0	102.8	80	120	12/14/2023
Cadmium		0.0010		<b>0.0510</b>	0.0500	0	102.0	80	120	12/14/2023
Chromium		0.0015		<b>0.200</b>	0.2000	0	100.1	80	120	12/14/2023
Cobalt		0.0010		<b>0.511</b>	0.5000	0	102.3	80	120	12/14/2023
Lead		0.0010		<b>0.525</b>	0.5000	0	105.0	80	120	12/14/2023
Lithium	*	0.0030		<b>0.500</b>	0.5000	0	99.9	80	120	12/14/2023
Molybdenum		0.0015		<b>0.495</b>	0.5000	0	99.0	80	120	12/14/2023
Selenium		0.0010		<b>0.563</b>	0.5000	0	112.6	80	120	12/14/2023
Thallium		0.0020		<b>0.251</b>	0.2500	0	100.5	80	120	12/18/2023





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**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 215858**      **SampType: MS**      Units mg/L

SampID: 23120001-001CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.506</b>	0.5000	0	101.2	75	125	12/14/2023
Arsenic		0.0010		<b>0.528</b>	0.5000	0	105.6	75	125	12/14/2023
Beryllium		0.0010		<b>0.0502</b>	0.0500	0	100.3	75	125	12/14/2023
Cadmium		0.0010		<b>0.0501</b>	0.0500	0	100.2	75	125	12/14/2023
Chromium		0.0015		<b>0.186</b>	0.2000	0	93.1	75	125	12/14/2023
Cobalt		0.0010		<b>0.475</b>	0.5000	0.0002345	95.0	75	125	12/14/2023
Lead		0.0010		<b>0.480</b>	0.5000	0	95.9	75	125	12/14/2023
Lithium	*	0.0030		<b>0.500</b>	0.5000	0.01406	97.2	75	125	12/14/2023
Molybdenum		0.0015		<b>0.486</b>	0.5000	0.0009997	97.0	75	125	12/14/2023
Selenium		0.0010		<b>0.557</b>	0.5000	0	111.5	75	125	12/14/2023
Thallium		0.0020		<b>0.239</b>	0.2500	0	95.8	75	125	12/18/2023

**Batch 215858**      **SampType: MSD**      Units mg/L

RPD Limit **20**

SampID: 23120001-001CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		<b>0.487</b>	0.5000	0	97.3	0.5060	3.87	12/14/2023
Arsenic		0.0010		<b>0.526</b>	0.5000	0	105.2	0.5279	0.38	12/14/2023
Beryllium		0.0010		<b>0.0504</b>	0.0500	0	100.8	0.05015	0.45	12/14/2023
Cadmium		0.0010		<b>0.0471</b>	0.0500	0	94.2	0.05009	6.18	12/14/2023
Chromium		0.0015		<b>0.197</b>	0.2000	0	98.3	0.1862	5.40	12/14/2023
Cobalt		0.0010		<b>0.498</b>	0.5000	0.0002345	99.6	0.4751	4.74	12/14/2023
Lead		0.0010		<b>0.496</b>	0.5000	0	99.2	0.4797	3.34	12/14/2023
Lithium	*	0.0030		<b>0.509</b>	0.5000	0.01406	99.1	0.4999	1.90	12/14/2023
Molybdenum		0.0015		<b>0.491</b>	0.5000	0.0009997	97.9	0.4858	1.00	12/14/2023
Selenium		0.0010		<b>0.556</b>	0.5000	0	111.3	0.5574	0.20	12/14/2023
Thallium		0.0020		<b>0.243</b>	0.2500	0	97.1	0.2394	1.35	12/18/2023



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch** 215892      **SampType:** MBLK      **Units** mg/L  
**SampID:** MBLK-215892

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	12/15/2023
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	12/14/2023
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	12/14/2023
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	12/14/2023
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	12/15/2023
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	12/14/2023
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	12/14/2023
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	12/14/2023
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	12/14/2023
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	12/14/2023
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	12/14/2023

**Batch** 215892      **SampType:** LCS      **Units** mg/L  
**SampID:** LCS-215892

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.501	0.5000	0	100.3	80	120	12/15/2023
Arsenic		0.0010		0.552	0.5000	0	110.4	80	120	12/14/2023
Beryllium		0.0010		0.0506	0.0500	0	101.2	80	120	12/14/2023
Cadmium		0.0010		0.0533	0.0500	0	106.7	80	120	12/14/2023
Chromium		0.0015		0.204	0.2000	0	102.2	80	120	12/15/2023
Cobalt		0.0010		0.546	0.5000	0	109.2	80	120	12/14/2023
Lead		0.0010		0.519	0.5000	0	103.8	80	120	12/14/2023
Lithium	*	0.0030		0.505	0.5000	0	101.1	80	120	12/14/2023
Molybdenum		0.0015		0.521	0.5000	0	104.2	80	120	12/14/2023
Selenium		0.0010		0.531	0.5000	0	106.2	80	120	12/14/2023
Thallium		0.0020		0.243	0.2500	0	97.3	80	120	12/14/2023

### SW-846 7470A (TOTAL)

**Batch** 215840      **SampType:** MBLK      **Units** mg/L  
**SampID:** MBLK-215840

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	12/13/2023



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

**SW-846 7470A (TOTAL)**

Batch 215840		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-215840											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00493</b>	0.0050	0	98.6	85	115	12/14/2023	

Batch 215840		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120001-006CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00440</b>	0.0050	0	87.9	75	125	12/13/2023	

Batch 215840		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 23120001-006CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		<b>0.00455</b>	0.0050	0	91.1	0.004396	3.54	12/13/2023		

Batch 215912		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-215912											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>&lt; 0.00020</b>	0.0001	0	0	-100	100	12/14/2023	

Batch 215912		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-215912											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00458</b>	0.0050	0	91.7	85	115	12/14/2023	

Batch 215912		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120001-009CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00381</b>	0.0050	0	76.2	75	125	12/14/2023	

Batch 215912		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 23120001-009CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		<b>0.00418</b>	0.0050	0	83.6	0.003808	9.25	12/14/2023		

Batch 215912		SampType: MS		Units mg/L							Date Analyzed
SampID: 23120949-009AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00406</b>	0.0050	0	81.3	75	125	12/14/2023	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 23120001

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Jan-24

### SW-846 7470A (TOTAL)

Batch 215912	SampType: MSD	Units mg/L				RPD Limit 15				
SampID: 23120949-009AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Mercury		0.00020		<b>0.00401</b>	0.0050	0	80.2	0.004064	1.35	12/14/2023





# Receiving Check List

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 23120001

Client Project: Groundwater Monitoring

Report Date: 09-Jan-24

Carrier: Justin Colp

Received By: HAW

Completed by:

Reviewed by:

On:

On:

12-Dec-23

12-Dec-23

Hannah Walker

Ellie Hopkins

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **7.2**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

pH strip #90719. - hwalker - 12/12/2023 8:02:45 AM

Samples collected on 12/12/23 were received on 12/12/23 at 1532 (on ice - 9.2 - LTG5). pH strip #90719. Additional nitric acid (94914) was needed in EP-3 upon arrival at the laboratory. LH/MEK 12/12/23 1600

# CHAIN OF CUSTODY

pg. 1 of 2 Work order # 25120001

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

**Client:** Southern Illinois Power Cooperation  
**Address:** 11543 Lake of Egypt Road  
**City / State / Zip:** Marion, IL 62959  
**Contact:** Jason McLaurin **Phone:** (618) 964-1448  
**E-Mail:** jmclaurin@sipower.org **Fax:** \_\_\_\_\_

**Samples on:**  ICE  BLUE ICE  NO ICE 7.2 °C LTG# 5  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:** PHV90719 HW 12/12

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl  
 Field = DO, Elevations, ORP, Purge Volume, Conductivity, pH, Temp and Turbidity

**Project Name/Number:** Groundwater Monitoring  
**Sample Collector's Name:** Justin Colp

**Results Requested:**  Standard  1-2 Day (100% Surcharge)  
 Other  3 Day (50% Surcharge)  
**Billing Instructions:** \_\_\_\_\_  
**# and Type of Containers:**

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers	
			UNP	HNO3
001	EBG	12-11-23 / 1214	1	3
002	EP-1	12-11-23 / 1402	1	3
003	EP-2		1	3
004	EP-3		1	3
005	EP-4		1	3
006	EP-5	12-11-23 / 1325	1	3
007	EP-6	12-11-23 / 1200	1	3
008	EP-7		1	3
009	Equipment Blank		1	3
010	Field Blank		1	3

MATRIX		INDICATE ANALYSIS REQUESTED														
Aqueous	Groundwater	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						
X	X	X	X	X	X	X	X	X	X	X						

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	12-11-23 / 1645	<i>[Signature]</i>	12/11/23 1645









Summit Environmental Technologies, Inc.  
3310 Win St.  
Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

January 04, 2024

Elizabeth Hurley  
TEKLAB Inc,  
5445 Horseshoe lake Road  
Collinsville, IL 62234  
TEL:  
FAX:  
RE: 23120001

Order No.: 23121340

Dear Elizabeth Hurley:

Summit Environmental Technologies, Inc. received 11 sample(s) on 12/15/2023 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf  
Project Manager  
3310 Win St.  
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



**SUMMIT**  
ENVIRONMENTAL TECHNOLOGIES, INC.  
Analytical Laboratories

Summit Environmental Technologies, Inc.  
3310 Win St.  
Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

## Case Narrative

WO#: 23121340  
Date: 1/4/2024

---

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001

---

### WorkOrder Narrative:

23121340: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

---

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

### Qualifiers

<b>U</b>	The compound was analyzed for but was not detected above the MDL.
<b>J</b>	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
<b>H</b>	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
<b>D</b>	The result is reported from a dilution.
<b>E</b>	The result exceeded the linear range of the calibration or is estimated due to interference.
<b>MC</b>	The result is below the Minimum Compound Limit.
<b>*</b>	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
<b>m</b>	Manual integration was used to determine the area response.
<b>d</b>	Manual integration in which peak was deleted
<b>N</b>	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
<b>P</b>	The second column confirmation exceeded 25% difference.
<b>C</b>	The result has been confirmed by GC/MS.
<b>X</b>	The result was not confirmed when GC/MS Analysis was performed.
<b>B</b>	The analyte was detected in the Method Blank at a concentration greater than the RL.
<b>MB+</b>	The analyte was detected in the Method Blank at a concentration greater than the MDL.
<b>G</b>	The ICB or CCB contained reportable amounts of analyte.
<b>QC-/+</b>	The CCV recovery failed low (-) or high (+).
<b>R/QDR</b>	The RPD was outside of accepted recovery limits.
<b>QL-/+</b>	The LCS or LCSD recovery failed low (-) or high (+).
<b>QLR</b>	The LCS/LCSD RPD was outside of accepted recovery limits.
<b>QM-/+</b>	The MS or MSD recovery failed low (-) or high (+).
<b>QMR</b>	The MS/MSD RPD was outside of accepted recovery limits.
<b>QV-/+</b>	The ICV recovery failed low (-) or high (+).
<b>S</b>	The spike result was outside of accepted recovery limits.
<b>W</b>	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
<b>Z</b>	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

### Acronyms

<b>ND</b>	Not Detected	<b>RL</b>	Reporting Limit
<b>QC</b>	Quality Control	<b>MDL</b>	Method Detection Limit
<b>MB</b>	Method Blank	<b>LOD</b>	Level of Detection
<b>LCS</b>	Laboratory Control Sample	<b>LOQ</b>	Level of Quantitation
<b>LCSD</b>	Laboratory Control Sample Duplicate	<b>PQL</b>	Practical Quantitation Limit
<b>QCS</b>	Quality Control Sample	<b>CRQL</b>	Contract Required Quantitation Limit
<b>DUP</b>	Duplicate	<b>PL</b>	Permit Limit
<b>MS</b>	Matrix Spike	<b>RegLvl</b>	Regulatory Limit
<b>MSD</b>	Matrix Spike Duplicate	<b>MCL</b>	Maximum Contamination Limit
<b>RPD</b>	Relative Percent Different	<b>MinCL</b>	Minimum Compound Limit
<b>ICV</b>	Initial Calibration Verification	<b>RA</b>	Reanalysis
<b>ICB</b>	Initial Calibration Blank	<b>RE</b>	Reextraction
<b>CCV</b>	Continuing Calibration Verification	<b>TIC</b>	Tentatively Identified Compound
<b>CCB</b>	Continuing Calibration Blank	<b>RT</b>	Retention Time
<b>RLC</b>	Reporting Limit Check	<b>CF</b>	Calibration Factor

**This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.**



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

## Workorder Sample Summary

WO#: 23121340  
 04-Jan-24

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
23121340-001	23120001-001		12/11/2023 12:14:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-002	23120001-002		12/11/2023 2:02:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-003	23120001-003		12/12/2023 12:20:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-004	23120001-004		12/12/2023 10:26:00 AM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-005	23120001-005		12/12/2023 12:45:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-006	23120001-006		12/11/2023 1:25:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-007	23120001-007		12/11/2023 12:00:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-008	23120001-008		12/12/2023 11:23:00 AM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-009	23120001-009		12/12/2023 12:25:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-010	23120001-010		12/12/2023 12:30:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water
23121340-011	23120001-011		12/11/2023 12:14:00 PM	12/15/2023 10:55:00 AM	Non-Potable Water





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 Cuyahoga Falls, Ohio 44223  
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 Website: <http://www.settek.com>

# DATES REPORT

WO#: 23121340  
 04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23121340-001A	23120001-001	12/11/2023 12:14:00 PM	Non-Potable Water	Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-002A	23120001-002	12/11/2023 2:02:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-003A	23120001-003	12/12/2023 12:20:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-004A	23120001-004	12/12/2023 10:26:00 AM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-005A	23120001-005	12/12/2023 12:45:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-006A	23120001-006	12/11/2023 1:25:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-007A	23120001-007	12/11/2023 12:00:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM
				Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-008A	23120001-008	12/12/2023 11:23:00 AM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/21/2023 3:12:00 PM	12/29/2023 9:54:00 AM

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# DATES REPORT

WO#: 23121340  
 04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
23121340-008A	23120001-008	12/12/2023 11:23:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		12/21/2023 3:12:00 PM	12/28/2023 1:45:00 PM
23121340-009A	23120001-009	12/12/2023 12:25:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/28/2023 3:55:48 PM	1/3/2024 10:11:00 AM
				Radium-228 (EPA 904.0)		12/28/2023 3:55:48 PM	1/2/2024 2:32:00 PM
23121340-010A	23120001-010	12/12/2023 12:30:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/28/2023 3:55:48 PM	1/3/2024 10:11:00 AM
				Radium-228 (EPA 904.0)		12/28/2023 3:55:48 PM	1/2/2024 2:32:00 PM
23121340-011A	23120001-011	12/11/2023 12:14:00 PM		Combined Radium (EPA903+904)			1/4/2024 7:05:53 AM
				Radium-226 (EPA 903.0)		12/28/2023 3:55:48 PM	1/3/2024 10:11:00 AM
				Radium-228 (EPA 904.0)		12/28/2023 3:55:48 PM	1/2/2024 2:32:00 PM

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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-001  
**Client Sample ID:** 23120001-001

**Collection Date:** 12/11/2023 12:14:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	3.27	2.00		pCi/L	± 1.01	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-226	0.06	1.00	U	pCi/L	± 0.0700	1	12/29/2023 9:54:00 AM
Yield	0.93					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-228	3.21	1.00		pCi/L	± 0.940	1	12/28/2023 1:45:00 PM
Yield	0.87					1	12/28/2023 1:45:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-002  
**Client Sample ID:** 23120001-002

**Collection Date:** 12/11/2023 2:02:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>			Analyst: <b>CXS</b>
Radium-226/Radium-228	1.94	2.00	U	pCi/L	± 0.800	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>		<b>E903-904</b>	Analyst: <b>HDJ</b>
Radium-226	0.04	1.00	U	pCi/L	± 0.0500	1	12/29/2023 9:54:00 AM
Yield	0.97					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>		<b>E903-904</b>	Analyst: <b>HDJ</b>
Radium-228	1.9	1.00		pCi/L	± 0.750	1	12/28/2023 1:45:00 PM
Yield	1					1	12/28/2023 1:45:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-003  
**Client Sample ID:** 23120001-003

**Collection Date:** 12/12/2023 12:20:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	2.08	2.00		pCi/L	± 0.860	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>		<b>E903-904</b> Analyst: <b>HDJ</b>	
Radium-226	0.23	1.00	U	pCi/L	± 0.100	1	12/29/2023 9:54:00 AM
Yield	0.92					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>		<b>E903-904</b> Analyst: <b>HDJ</b>	
Radium-228	1.85	1.00		pCi/L	± 0.760	1	12/28/2023 1:45:00 PM
Yield	0.92					1	12/28/2023 1:45:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-004  
**Client Sample ID:** 23120001-004

**Collection Date:** 12/12/2023 10:26:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	1.83	2.00	U	pCi/L	± 0.820	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>		<b>E903-904</b> Analyst: <b>HDJ</b>	
Radium-226	0.12	1.00	U	pCi/L	± 0.0800	1	12/29/2023 9:54:00 AM
Yield	0.97					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>		<b>E903-904</b> Analyst: <b>HDJ</b>	
Radium-228	1.71	1.00		pCi/L	± 0.740	1	12/28/2023 1:45:00 PM
Yield	0.99					1	12/28/2023 1:45:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-005  
**Client Sample ID:** 23120001-005

**Collection Date:** 12/12/2023 12:45:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	1.75	2.00	U	pCi/L	± 0.770	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-226	0.31	1.00	U	pCi/L	± 0.120	1	12/29/2023 9:54:00 AM
Yield	0.92					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-228	1.44	1.00		pCi/L	± 0.650	1	12/28/2023 1:45:00 PM
Yield	1					1	12/28/2023 1:45:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-006  
**Client Sample ID:** 23120001-006

**Collection Date:** 12/11/2023 1:25:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	2.36	2.00		pCi/L	± 0.920	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-226	0.48	1.00	U	pCi/L	± 0.150	1	12/29/2023 9:54:00 AM
Yield	0.86					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-228	1.88	1.00		pCi/L	± 0.770	1	12/28/2023 1:45:00 PM
Yield	0.89					1	12/28/2023 1:45:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original





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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-007  
**Client Sample ID:** 23120001-007

**Collection Date:** 12/11/2023 12:00:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>			Analyst: <b>CXS</b>
Radium-226/Radium-228	0.5	2.00	U	pCi/L	± 0.540	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-226	0.01	1.00	U	pCi/L	± 0.0400	1	12/29/2023 9:54:00 AM
Yield	1					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-228	0.49	1.00	U	pCi/L	± 0.500	1	12/28/2023 1:45:00 PM
Yield	1					1	12/28/2023 1:45:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-008  
**Client Sample ID:** 23120001-008

**Collection Date:** 12/12/2023 11:23:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	4.3	2.00		pCi/L	± 1.17	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-226	0.2	1.00	U	pCi/L	± 0.100	1	12/29/2023 9:54:00 AM
Yield	1					1	12/29/2023 9:54:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-228	4.1	1.00		pCi/L	± 1.07	1	12/28/2023 1:45:00 PM
Yield	0.88					1	12/28/2023 1:45:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-009  
**Client Sample ID:** 23120001-009

**Collection Date:** 12/12/2023 12:25:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>			Analyst: <b>CXS</b>
Radium-226/Radium-228	0.05	2.00	U	pCi/L	± 0.580	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>HDJ</b>	
Radium-226	0.05	1.00	U	pCi/L	± 0.0500	1	1/3/2024 10:11:00 AM
Yield	1					1	1/3/2024 10:11:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>SMZ</b>	
Radium-228	-0.18	1.00	U	pCi/L	± 0.530	1	1/2/2024 2:32:00 PM
Yield	1					1	1/2/2024 2:32:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-010  
**Client Sample ID:** 23120001-010

**Collection Date:** 12/12/2023 12:30:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	0.18	2.00	U	pCi/L	± 0.570	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>		<b>E903-904</b> Analyst: <b>HDJ</b>	
Radium-226	0.06	1.00	U	pCi/L	± 0.0500	1	1/3/2024 10:11:00 AM
Yield	1					1	1/3/2024 10:11:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>		<b>E903-904</b> Analyst: <b>SMZ</b>	
Radium-228	0.12	1.00	U	pCi/L	± 0.520	1	1/2/2024 2:32:00 PM
Yield	0.99					1	1/2/2024 2:32:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original





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# Analytical Report

(consolidated)

WO#: 23121340

Date Reported: 1/4/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 23120001  
**Lab ID:** 23121340-011  
**Client Sample ID:** 23120001-011

**Collection Date:** 12/11/2023 12:14:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>		Analyst: <b>CXS</b>	
Radium-226/Radium-228	0.41	2.00	U	pCi/L	± 0.610	1	1/4/2024 7:05:53 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>		<b>E903-904</b> Analyst: <b>HDJ</b>	
Radium-226	0.01	1.00	U	pCi/L	± 0.0400	1	1/3/2024 10:11:00 AM
Yield	1					1	1/3/2024 10:11:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>		<b>E903-904</b> Analyst: <b>SMZ</b>	
Radium-228	0.4	1.00	U	pCi/L	± 0.570	1	1/2/2024 2:32:00 PM
Yield	1					1	1/2/2024 2:32:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



Summit Environmental Technologies, Inc.  
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 TEL: (330) 253-8211 FAX: (330) 253-4489  
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# QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

**BatchID:** 71569

Sample ID: <b>MB-71569</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177263</b>						
Client ID: <b>PBW</b>	Batch ID: <b>71569</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>12/28/2023</b>	SeqNo: <b>4802302</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: <b>LCS-71569</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177263</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>71569</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>12/28/2023</b>	SeqNo: <b>4802303</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.63	1.00	5.000	0	72.6	70	130				
Yield	1.00			0	0						

Sample ID: <b>RLC-71569</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177263</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>12/28/2023</b>	SeqNo: <b>4802306</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.11	1.00	1.000	0	111	50	150				
Yield	1.00			0	0						

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,

**Project:** 23120001

**BatchID:** 71569

Sample ID: <b>RLCD-71569</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177263</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>12/28/2023</b>	SeqNo: <b>4802307</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.770	1.00	1.000	0	77.0	50	150				J
Yield	1.00			0	0						

Sample ID: <b>23121247-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177263</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>12/28/2023</b>	SeqNo: <b>4802312</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.33	1.00		0	0			1.140	15.4	20	
Yield	0.970			0	0			0.6100	45.6		

Sample ID: <b>23121248-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177263</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>12/28/2023</b>	SeqNo: <b>4802314</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	U
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

**BatchID:** 71569

Sample ID: <b>MB-71569</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>PBW</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802496</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: <b>LCS-71569</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802497</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.18	1.00	5.000	0	104	70	130				

Sample ID: <b>RLC-71569</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802500</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.03	1.00	1.000	0	103	50	150				

Sample ID: <b>RLCD-71569</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802501</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec





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## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

**BatchID:** 71569

Sample ID: <b>RLCD-71569</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802501</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.980	1.00	1.000	0	98.0	50	150				J

Sample ID: <b>23121247-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802504</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

Sample ID: <b>23121248-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/21/2023</b>	RunNo: <b>177274</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71569</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>12/29/2023</b>	SeqNo: <b>4802506</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	0.980							1.000	2.02	0	

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

**BatchID:** 71670

Sample ID: <b>23121342-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177460</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>1/2/2024</b>	SeqNo: <b>4807387</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.71	1.00		0	0			0	200	30	JR
Yield	0.94			0	0			0.8800	6.59		

Sample ID: <b>23121342-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177460</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>1/2/2024</b>	SeqNo: <b>4807389</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.75	1.00		0	0			1.200	46.2	30	JR
Yield	1			0	0			0.9900	1.01		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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# QC SUMMARY REPORT

WO#: 23121340  
 04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

**BatchID:** 71670

Sample ID: <b>MB-71670</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177460</b>						
Client ID: <b>PBW</b>	Batch ID: <b>71670</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>1/2/2024</b>	SeqNo: <b>4807377</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: <b>LCS-71670</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177460</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>71670</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>1/2/2024</b>	SeqNo: <b>4807378</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	5.35	1.00	5.000	0	107	70	130				QLR
Yield	1.00			0	0						

Sample ID: <b>LCSD-71670</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177460</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>71670</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>1/2/2024</b>	SeqNo: <b>4807379</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.84	1.00	5.000	0	76.8	70	130	5.350	32.9	20	R
Yield	0.910			0	0			1.000	9.42		

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,

**Project:** 23120001

**BatchID:** 71670

Sample ID: <b>RLCD-71670</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177460</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>1/2/2024</b>	SeqNo: <b>4807382</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00	1.000	0	51.0	50	150				
Yield	0.830			0	0						

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec





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## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,

**Project:** 23120001

**BatchID:** 71670

Sample ID: <b>23121342-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807428</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.12	1.00						0	0	30	U
Yield	0.99							0.9900	0	0	

Sample ID: <b>23121342-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807430</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.19	1.00						0	0	30	U
Yield	1							1.000	0	0	

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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# QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,  
**Project:** 23120001

**BatchID:** 71670

Sample ID: <b>MB-71670</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>PBW</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807418</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: <b>LCS-71670</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807419</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.85	1.00	5.000	0	117	70	130				

Sample ID: <b>LCSD-71670</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807420</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.94	1.00	5.000	0	98.8	70	130	5.850	16.9	20	

Sample ID: <b>RLC-71670</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807422</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

## QC SUMMARY REPORT

WO#: 23121340

04-Jan-24

**Client:** TEKLAB Inc,

**Project:** 23120001

**BatchID:** 71670

Sample ID: <b>RLC-71670</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807422</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.890	1.00	1.000	0	89.0	50	150				J

Sample ID: <b>RLCD-71670</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>12/28/2023</b>	RunNo: <b>177464</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>71670</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>1/3/2024</b>	SeqNo: <b>4807423</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.980	1.00	1.000	0	98.0	50	150				J

**Qualifiers:**

H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec

# TEKLAB, INC. Chain of Custody

23121340

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES  NO  With:  Ice  Blue Ice Preserved in:  Lab  Field

Teklab Inc Cooler Temp:  Sampler: Justin Colp QC Level:

5445 Horseshoe Lake Road  
Collinsville, IL 62234

Comments: **Please Issue reports and invoices via email only**  
Please analyze for Radium (226 and 228) by method EPA903.0/904.0  
on your standard turnaround time.  
Batch QC is required with the report. Receipt summary requested.

Project#

Contact: Elizabeth A. Hurley Email: EHurley@teklabinc.com  
Requested Due Date: 20 business days or less Billing/PO: 35487

State of Origin: IL  
Phone: (618) 344-1004 ext. 33  
17.9-0.2: 17.7 °C; Fedex cooler

**PLEASE NOTE:**

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately. Any changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228											
	23120001-001	12/11/23 1214	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-002	12/11/23 1402	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-003	12/12/23 1220	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-004	12/12/23 1026	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-005	12/12/23 1245	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-006	12/11/23 1325	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-007	12/11/23 1200	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-008	12/12/23 1123	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-009	12/12/23 1225	HNO3	Aqueous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-010	12/12/23 1230	HNO3	Aqueous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
	23120001-011	12/11/23 1214	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											

*Relinquished By <i>Mary Kemp</i>	Date/Time 12/13/23 1600	Received By <i>Justin Colp</i>	Date/Time 12/15/23, 1055



# Sample Log-In Check List

Client Name: TEK-IL-62234-A      Work Order Number: 23121340      RcptNo: 1

Logged by:	Tegan A. Richards	12/15/2023 10:55:00 AM	<i>Tegan Richards</i>
Completed By:	Tegan A. Richards	12/18/2023 3:42:02 PM	<i>Tegan Richards</i>
Reviewed By:	Jennifer Woolf	12/18/2023 3:50:57 PM	<i>Jennifer Woolf</i>

### Chain of Custody

1. Is Chain of Custody complete?      Yes       No       Not Present
2. How was the sample delivered?      FedEx

### Log In

3. Coolers are present?      Yes       No       NA
4. Shipping container/cooler in good condition?      Yes       No
- Custody seals intact on shipping container/cooler?      Yes       No       Not Present
- No.      Seal Date:      Signed By:
5. Was an attempt made to cool the samples?      Yes       No       NA
6. Were all samples received at a temperature of >0° C to 6.0°C      Yes       No       NA
- Not required
7. Sample(s) in proper container(s)?      Yes       No
8. Sufficient sample volume for indicated test(s)?      Yes       No
9. Are samples (except VOA and ONG) properly preserved?      Yes       No
10. Was preservative added to bottles?      Yes       No       NA
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm?      Yes       No       No VOA Vials
12. Were any sample containers received broken?      Yes       No
13. Does paperwork match bottle labels?      Yes       No
- (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody?      Yes       No
15. Is it clear what analyses were requested?      Yes       No
16. Were all holding times able to be met?      Yes       No
- (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	17.7	Good	Not Present			



May 06, 2024

Jason McLaurin  
Southern Illinois Power Cooperation  
11543 Lake of Egypt Road  
Marion, IL 62959  
TEL: (618) 964-1448  
FAX:



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Groundwater Monitoring

**WorkOrder:** 24030002

Dear Jason McLaurin:

TEKLAB, INC received 11 samples on 3/15/2024 8:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley  
Director of Customer Service  
(618)344-1004 ex 33  
[ehurley@teklabinc.com](mailto:ehurley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**This reporting package includes the following:**

Cover Letter	1
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Case Narrative	5
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Laboratory Results	7
Quality Control Results	27
Receiving Check List	50
Chain of Custody	Appended



**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count ( > 200 CFU )

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)



# Case Narrative

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Cooler Receipt Temp:** 11.1 °C

An employee of Teklab, Inc. collected the sample(s).

Ra226/228 analysis was performed by Summit Environmental Technologies, Inc. See attached report for results.

This report was revised on April 15, 2024 per Cassandra Sferazo (WSP)'s review. The reason for the revision is to remove a duplicate Lithium value reported for EBG in error. Please replace report dated April 9, 2024 with this report. EAH 4/15/24

This is the second revision for this WO last revised on May 6, 2024, per Danielle Silvia (WSP)'s request. The reason for this revision is to remove a duplicate Selenium value reported for Field Duplicate in error. Please replace report dated April 15, 2024 with this report. EAH 5/6/24

## Locations

### Collinsville

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** jhriley@teklabinc.com

### Springfield

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415  
**Phone** (217) 698-1004  
**Fax** (217) 698-1005  
**Email** KKlostermann@teklabinc.com

### Kansas City

**Address** 8421 Nieman Road  
Lenexa, KS 66214  
**Phone** (913) 541-1998  
**Fax** (913) 541-1998  
**Email** jhriley@teklabinc.com

### Collinsville Air

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
**Email** EHurley@teklabinc.com

### Chicago

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515  
**Phone** (630) 324-6855  
**Fax**  
**Email** arenner@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-001

Client Sample ID: EBG

Matrix: GROUNDWATER

Collection Date: 03/12/2024 13:27

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		9.49	ft	1	03/12/2024 13:27	R344521
Elevation of groundwater surface	*	0	0		515.38	ft	1	03/12/2024 13:27	R344521
Measuring Point Elevation	*	0	0		524.87	ft	1	03/12/2024 13:27	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.59	gal	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.8	NTU	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		138	mV	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		500	µS/cm	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		19.5	°C	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		3.95	mg/L	1	03/12/2024 13:27	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.71		1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		348	mg/L	1	03/13/2024 8:14	R344358
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		16	mg/L	1	03/13/2024 12:19	R344318
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		85	mg/L	5	03/13/2024 12:24	R344317
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.55	mg/L	1	03/13/2024 11:18	R344290
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0560	mg/L	1	03/14/2024 14:06	219890
Boron	NELAP	0.0090	0.020	J	0.013	mg/L	1	03/14/2024 14:06	219890
Calcium	NELAP	0.0350	0.100	B	13.6	mg/L	1	03/14/2024 14:06	219890
<i>Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/20/2024 8:32	219890
Arsenic	NELAP	0.0004	0.0010	J	0.0004	mg/L	5	03/14/2024 13:10	219890
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/14/2024 13:10	219890
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/14/2024 13:10	219890
Chromium	NELAP	0.0010	0.0015		0.0019	mg/L	5	03/14/2024 13:10	219890
Cobalt	NELAP	0.0001	0.0010	J	0.0002	mg/L	5	03/14/2024 13:10	219890
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/14/2024 13:10	219890
Lithium	*	0.0015	0.0030		0.0265	mg/L	5	03/14/2024 13:10	219890
Molybdenum	NELAP	0.0006	0.0015		0.0016	mg/L	5	03/14/2024 13:10	219890
Selenium	NELAP	0.0006	0.0010	J	0.0006	mg/L	5	03/15/2024 22:59	219890
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/14/2024 13:10	219890
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/14/2024 13:59	219856





## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-001

**Client Sample ID:** EBG

**Matrix:** GROUNDWATER

**Collection Date:** 03/12/2024 13:27

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-002

Client Sample ID: EP-1

Matrix: GROUNDWATER

Collection Date: 03/13/2024 13:04

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		5.93	ft	1	03/13/2024 13:04	R344521
Elevation of groundwater surface	*	0	0		513.79	ft	1	03/13/2024 13:04	R344521
Measuring Point Elevation	*	0	0		519.72	ft	1	03/13/2024 13:04	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.59	gal	1	03/13/2024 13:04	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		9.2	NTU	1	03/13/2024 13:04	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		157	mV	1	03/13/2024 13:04	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2430	µS/cm	1	03/13/2024 13:04	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.8	°C	1	03/13/2024 13:04	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.98	mg/L	1	03/13/2024 13:04	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.32		1	03/13/2024 13:04	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		2540	mg/L	1	03/14/2024 9:35	R344417
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		40	mg/L	1	03/14/2024 10:27	R344357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1530	mg/L	50	03/14/2024 10:32	R344355
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.23	mg/L	1	03/14/2024 15:49	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0146	mg/L	1	03/15/2024 18:49	219947
Boron	NELAP	0.0090	0.0200		1.05	mg/L	1	03/15/2024 18:49	219947
Calcium	NELAP	0.0350	0.100		548	mg/L	1	03/15/2024 18:49	219947
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/20/2024 9:42	219947
Arsenic	NELAP	0.0004	0.0010	J	0.0007	mg/L	5	03/16/2024 2:00	219947
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/16/2024 2:00	219947
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/16/2024 2:00	219947
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	03/16/2024 2:00	219947
Cobalt	NELAP	0.0001	0.0010	J	0.0002	mg/L	5	03/16/2024 2:00	219947
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/16/2024 2:00	219947
Lithium	*	0.0015	0.0030		0.0142	mg/L	5	03/16/2024 2:00	219947
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/16/2024 2:00	219947
Selenium	NELAP	0.0006	0.0010		0.0047	mg/L	5	03/16/2024 2:00	219947
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/16/2024 2:00	219947
<i>LCS recovered outside upper control limits for As and Cd. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>									
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/21/2024 11:45	220165



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-002

Client Sample ID: EP-1

Matrix: GROUNDWATER

Collection Date: 03/13/2024 13:04

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-003

Client Sample ID: EP-2

Matrix: GROUNDWATER

Collection Date: 03/13/2024 15:27

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		6.85	ft	1	03/13/2024 15:27	R344521
Elevation of groundwater surface	*	0	0		506.94	ft	1	03/13/2024 15:27	R344521
Measuring Point Elevation	*	0	0		513.79	ft	1	03/13/2024 15:27	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.38	gal	1	03/13/2024 15:27	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.0	NTU	1	03/13/2024 15:27	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		108	mV	1	03/13/2024 15:27	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2950	µS/cm	1	03/13/2024 15:27	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		16.1	°C	1	03/13/2024 15:27	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		3.08	mg/L	1	03/13/2024 15:27	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.06		1	03/13/2024 15:27	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		3250	mg/L	1	03/14/2024 9:36	R344417
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	2	20		64	mg/L	5	03/14/2024 10:35	R344357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		2050	mg/L	50	03/14/2024 10:40	R344355
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.94	mg/L	1	03/14/2024 15:51	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0154	mg/L	1	03/15/2024 18:50	219947
Boron	NELAP	0.0090	0.0200		0.418	mg/L	1	03/15/2024 18:50	219947
Calcium	NELAP	0.0350	0.100		473	mg/L	1	03/15/2024 18:50	219947
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/20/2024 9:46	219947
Arsenic	NELAP	0.0004	0.0010	J	0.0007	mg/L	5	03/16/2024 2:54	219947
Beryllium	NELAP	0.0002	0.0010		0.0021	mg/L	5	03/18/2024 12:49	219947
Cadmium	NELAP	0.0002	0.0010		0.0014	mg/L	5	03/21/2024 10:54	220172
Chromium	NELAP	0.0007	0.0015		0.0017	mg/L	5	03/16/2024 2:54	219947
Cobalt	NELAP	0.0001	0.0010		0.0530	mg/L	5	03/18/2024 12:49	219947
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/16/2024 2:54	219947
Lithium	*	0.0015	0.0030		0.0291	mg/L	5	03/19/2024 9:18	219947
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/16/2024 2:54	219947
Selenium	NELAP	0.0006	0.0010		0.0028	mg/L	5	03/18/2024 12:49	219947
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/16/2024 2:54	219947
<i>PQL recovered outside upper control limits for Se. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>									
<i>LCS recovered outside upper control limits for As. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>									
<i>CCV recovered outside the upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>									
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/21/2024 11:48	220165



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-003

**Client Sample ID:** EP-2

**Matrix:** GROUNDWATER

**Collection Date:** 03/13/2024 15:27

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-004

Client Sample ID: EP-3

Matrix: GROUNDWATER

Collection Date: 03/14/2024 14:08

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		16.75	ft	1	03/14/2024 14:08	R344521
Elevation of groundwater surface	*	0	0		502.20	ft	1	03/14/2024 14:08	R344521
Measuring Point Elevation	*	0	0		518.95	ft	1	03/14/2024 14:08	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.11	gal	1	03/14/2024 14:08	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.1	NTU	1	03/14/2024 14:08	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-30	mV	1	03/14/2024 14:08	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1120	µS/cm	1	03/14/2024 14:08	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		20.6	°C	1	03/14/2024 14:08	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.19	mg/L	1	03/14/2024 14:08	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.18		1	03/14/2024 14:08	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		650	mg/L	2.5	03/15/2024 12:14	R344506
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	5	40		136	mg/L	10	03/18/2024 16:43	R344517
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	61	100		105	mg/L	10	03/18/2024 16:43	R344515
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.19	mg/L	1	03/15/2024 10:04	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0970	mg/L	1	03/20/2024 16:51	220109
Boron	NELAP	0.0090	0.0200		0.0676	mg/L	1	03/20/2024 16:51	220109
Calcium	NELAP	0.0530	0.100	S	35.4	mg/L	1	03/20/2024 16:51	220109
<i>Matrix spike control limits are not applicable due to high sample/spike ratio.</i>									
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/22/2024 15:15	220109
Arsenic	NELAP	0.0004	0.0010		0.0085	mg/L	5	03/21/2024 15:50	220109
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/22/2024 15:15	220109
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/21/2024 15:50	220109
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	03/21/2024 15:50	220109
Cobalt	NELAP	0.0001	0.0010		0.0888	mg/L	5	03/21/2024 15:50	220109
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/22/2024 15:15	220109
Lithium	*	0.0015	0.0030		0.0196	mg/L	5	03/21/2024 15:50	220109
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/21/2024 15:50	220109
Selenium	NELAP	0.0006	0.0010	J	0.0009	mg/L	5	03/21/2024 15:50	220109
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/21/2024 15:50	220109
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/21/2024 11:50	220165



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-004

**Client Sample ID:** EP-3

**Matrix:** GROUNDWATER

**Collection Date:** 03/14/2024 14:08

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24030002-005  
 Matrix: GROUNDWATER

Work Order: 24030002  
 Report Date: 06-May-24

Client Sample ID: EP-4

Collection Date: 03/14/2024 16:06

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		8.40	ft	1	03/14/2024 16:06	R344521
Elevation of groundwater surface	*	0	0		511.34	ft	1	03/14/2024 16:06	R344521
Measuring Point Elevation	*	0	0		519.74	ft	1	03/14/2024 16:06	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		3.43	gal	1	03/14/2024 16:06	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		15	NTU	1	03/14/2024 16:06	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-33	mV	1	03/14/2024 16:06	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2160	µS/cm	1	03/14/2024 16:06	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.4	°C	1	03/14/2024 16:06	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.12	mg/L	1	03/14/2024 16:06	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.07		1	03/14/2024 16:06	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		1600	mg/L	2.5	03/15/2024 12:15	R344506
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	10	80		457	mg/L	20	03/18/2024 16:46	R344517
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	123	200		465	mg/L	20	03/18/2024 16:46	R344515
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.16	mg/L	1	03/15/2024 10:07	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0355	mg/L	1	03/20/2024 16:56	220109
Boron	NELAP	0.0090	0.0200		9.42	mg/L	1	03/20/2024 16:56	220109
Calcium	NELAP	0.0530	0.100		176	mg/L	1	03/20/2024 16:56	220109
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/22/2024 14:48	220109
Arsenic	NELAP	0.0004	0.0010		0.0135	mg/L	5	03/21/2024 15:19	220109
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/22/2024 14:48	220109
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/21/2024 15:19	220109
Chromium	NELAP	0.0007	0.0015		0.0019	mg/L	5	03/21/2024 15:19	220109
Cobalt	NELAP	0.0001	0.0010		0.126	mg/L	5	03/21/2024 15:19	220109
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/22/2024 14:48	220109
Lithium	*	0.0015	0.0030	J	0.0025	mg/L	5	03/21/2024 15:19	220109
Molybdenum	NELAP	0.0006	0.0015	J	0.0010	mg/L	5	03/21/2024 15:19	220109
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	03/21/2024 15:19	220109
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/21/2024 15:19	220109
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/21/2024 11:52	220165
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-005

**Client Sample ID:** EP-4

**Matrix:** GROUNDWATER

**Collection Date:** 03/14/2024 16:06

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-006

Client Sample ID: EP-5

Matrix: GROUNDWATER

Collection Date: 03/13/2024 10:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		14.84	ft	1	03/13/2024 10:35	R344521
Elevation of groundwater surface	*	0	0		512.75	ft	1	03/13/2024 10:35	R344521
Measuring Point Elevation	*	0	0		527.59	ft	1	03/13/2024 10:35	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.06	gal	1	03/13/2024 10:35	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.3	NTU	1	03/13/2024 10:35	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		112	mV	1	03/13/2024 10:35	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		368	µS/cm	1	03/13/2024 10:35	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		14.9	°C	1	03/13/2024 10:35	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		6.10	mg/L	1	03/13/2024 10:35	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.67		1	03/13/2024 10:35	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		268	mg/L	1	03/14/2024 9:36	R344417
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4	J	3	mg/L	1	03/14/2024 10:59	R344357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		105	mg/L	5	03/14/2024 11:10	R344355
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.54	mg/L	1	03/14/2024 15:53	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0405	mg/L	1	03/15/2024 18:54	219947
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	03/15/2024 18:54	219947
Calcium	NELAP	0.0350	0.100		14.6	mg/L	1	03/15/2024 18:54	219947
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/20/2024 10:12	219947
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/16/2024 3:00	219947
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/16/2024 3:00	219947
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/16/2024 3:00	219947
Chromium	NELAP	0.0007	0.0015	J	0.0013	mg/L	5	03/16/2024 3:00	219947
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	03/16/2024 3:00	219947
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/16/2024 3:00	219947
Lithium	*	0.0015	0.0030	J	0.0025	mg/L	5	03/16/2024 3:00	219947
Molybdenum	NELAP	0.0006	0.0015	J	0.0011	mg/L	5	03/16/2024 3:00	219947
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/16/2024 3:00	219947
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/16/2024 3:00	219947
<i>LCS recovered outside upper control limits for As. Sample results are below the reporting limit. Data is reportable per the TNI Standard.</i>									
<i>CCV recovered outside the upper control limits. Sample results are below the reporting limit. Data is reportable per the TNI standard.</i>									
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/21/2024 11:55	220165





## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-006

**Client Sample ID:** EP-5

**Matrix:** GROUNDWATER

**Collection Date:** 03/13/2024 10:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24030002-007  
 Matrix: GROUNDWATER

Work Order: 24030002  
 Report Date: 06-May-24

Client Sample ID: EP-6

Collection Date: 03/14/2024 11:54

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		2.97	ft	1	03/14/2024 11:54	R344521
Elevation of groundwater surface	*	0	0		502.14	ft	1	03/14/2024 11:54	R344521
Measuring Point Elevation	*	0	0		505.11	ft	1	03/14/2024 11:54	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.19	gal	1	03/14/2024 11:54	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.8	NTU	1	03/14/2024 11:54	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		189	mV	1	03/14/2024 11:54	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		257	µS/cm	1	03/14/2024 11:54	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		16.2	°C	1	03/14/2024 11:54	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.53	mg/L	1	03/14/2024 11:54	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.00		1	03/14/2024 11:54	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		250	mg/L	2.5	03/15/2024 12:15	R344506
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		19	mg/L	1	03/18/2024 16:51	R344517
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	12	20		74	mg/L	2	03/18/2024 17:18	R344515
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10	J	0.06	mg/L	1	03/15/2024 10:09	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0376	mg/L	1	03/20/2024 16:57	220109
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	03/20/2024 16:57	220109
Calcium	NELAP	0.0530	0.100		1.54	mg/L	1	03/20/2024 16:57	220109
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/22/2024 14:54	220109
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/21/2024 15:26	220109
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/22/2024 14:54	220109
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/21/2024 15:26	220109
Chromium	NELAP	0.0007	0.0015		0.0017	mg/L	5	03/21/2024 15:26	220109
Cobalt	NELAP	0.0001	0.0010		0.0023	mg/L	5	03/21/2024 15:26	220109
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/22/2024 14:54	220109
Lithium	*	0.0015	0.0030		0.0112	mg/L	5	03/21/2024 15:26	220109
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/21/2024 15:26	220109
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/21/2024 15:26	220109
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/21/2024 15:26	220109
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/21/2024 12:55	220165
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-007

**Client Sample ID:** EP-6

**Matrix:** GROUNDWATER

**Collection Date:** 03/14/2024 11:54

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24030002-008  
 Matrix: GROUNDWATER

Work Order: 24030002  
 Report Date: 06-May-24

Client Sample ID: EP-7

Collection Date: 03/14/2024 13:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		14.03	ft	1	03/14/2024 13:40	R344521
Elevation of groundwater surface	*	0	0		501.41	ft	1	03/14/2024 13:40	R344521
Measuring Point Elevation	*	0	0		515.44	ft	1	03/14/2024 13:40	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.32	gal	1	03/14/2024 13:40	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		6.5	NTU	1	03/14/2024 13:40	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-4	mV	1	03/14/2024 13:40	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1520	µS/cm	1	03/14/2024 13:40	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		22.5	°C	1	03/14/2024 13:40	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.00	mg/L	1	03/14/2024 13:40	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.92		1	03/14/2024 13:40	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		1010	mg/L	2.5	03/15/2024 12:33	R344506
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	5	40		236	mg/L	10	03/18/2024 17:29	R344517
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	61	100		326	mg/L	10	03/18/2024 17:29	R344515
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.19	mg/L	1	03/15/2024 10:12	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0377	mg/L	1	03/20/2024 17:07	220109
Boron	NELAP	0.0090	0.0200		0.594	mg/L	1	03/20/2024 17:07	220109
Calcium	NELAP	0.0530	0.100		109	mg/L	1	03/20/2024 17:07	220109
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/22/2024 14:59	220109
Arsenic	NELAP	0.0004	0.0010		0.0066	mg/L	5	03/21/2024 15:32	220109
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/22/2024 14:59	220109
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/21/2024 15:32	220109
Chromium	NELAP	0.0007	0.0015		0.0638	mg/L	5	03/21/2024 15:32	220109
Cobalt	NELAP	0.0001	0.0010		0.156	mg/L	5	03/21/2024 15:32	220109
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/22/2024 14:59	220109
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	03/21/2024 15:32	220109
Molybdenum	NELAP	0.0006	0.0015	J	0.0014	mg/L	5	03/21/2024 15:32	220109
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/21/2024 15:32	220109
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/21/2024 15:32	220109
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00007	0.00020		< 0.00020	mg/L	1	03/21/2024 13:39	220166
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-008

**Client Sample ID:** EP-7

**Matrix:** GROUNDWATER

**Collection Date:** 03/14/2024 13:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-009

Client Sample ID: Equipment Blank

Matrix: AQUEOUS

Collection Date: 03/14/2024 16:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		20	mg/L	1	03/15/2024 12:33	R344506
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		< 4	mg/L	1	03/18/2024 17:31	R344517
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	6	10		< 10	mg/L	1	03/18/2024 17:31	R344515
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	03/15/2024 10:13	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	03/20/2024 17:08	220109
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	03/20/2024 17:08	220109
Calcium	NELAP	0.0530	0.100		0.112	mg/L	1	03/20/2024 17:08	220109
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/22/2024 15:04	220109
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/21/2024 15:38	220109
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/22/2024 15:04	220109
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/21/2024 15:38	220109
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	03/21/2024 15:38	220109
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	03/21/2024 15:38	220109
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/22/2024 15:04	220109
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	03/21/2024 15:38	220109
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/21/2024 15:38	220109
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/21/2024 15:38	220109
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/21/2024 15:38	220109
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00007	0.00020		< 0.00020	mg/L	1	03/21/2024 13:43	220166
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-010

Client Sample ID: Field Blank

Matrix: AQUEOUS

Collection Date: 03/14/2024 15:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	03/15/2024 12:33	R344506
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		< 4	mg/L	1	03/18/2024 17:34	R344517
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	6	10		< 10	mg/L	1	03/18/2024 17:34	R344515
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	03/15/2024 10:16	R344388
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	03/20/2024 17:10	220109
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	03/20/2024 17:10	220109
Calcium	NELAP	0.0530	0.100		< 0.100	mg/L	1	03/20/2024 17:10	220109
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/22/2024 15:09	220109
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/21/2024 15:44	220109
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/22/2024 15:09	220109
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/21/2024 15:44	220109
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	03/21/2024 15:44	220109
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	03/21/2024 15:44	220109
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/22/2024 15:09	220109
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	03/21/2024 15:44	220109
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	03/21/2024 15:44	220109
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/21/2024 15:44	220109
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/21/2024 15:44	220109
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00007	0.00020		< 0.00020	mg/L	1	03/21/2024 13:45	220166
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24030002

Client Project: Groundwater Monitoring

Report Date: 06-May-24

Lab ID: 24030002-011

Client Sample ID: Field Duplicate

Matrix: GROUNDWATER

Collection Date: 03/12/2024 13:27

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		9.49	ft	1	03/12/2024 13:27	R344521
Elevation of groundwater surface	*	0	0		515.38	ft	1	03/12/2024 13:27	R344521
Measuring Point Elevation	*	0	0		524.87	ft	1	03/12/2024 13:27	R344521
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.59	gal	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.8	NTU	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		138	mV	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		500	µS/cm	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		19.5	°C	1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		3.95	mg/L	1	03/12/2024 13:27	R344521
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.71		1	03/12/2024 13:27	R344521
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		342	mg/L	1	03/13/2024 8:14	R344358
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		16	mg/L	1	03/13/2024 12:27	R344318
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		84	mg/L	5	03/13/2024 12:46	R344317
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.58	mg/L	1	03/13/2024 11:20	R344290
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0544	mg/L	1	03/14/2024 15:59	219890
Boron	NELAP	0.0090	0.020	J	0.012	mg/L	1	03/14/2024 15:59	219890
Calcium	NELAP	0.0350	0.100	BS	12.8	mg/L	1	03/14/2024 15:59	219890
<i>Sample result(s) for Ca exceed 10 times the method blank contamination. Data is reportable per the TNI Standard.</i>									
<i>Matrix spike control limits are not applicable due to high sample/spike ratio.</i>									
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	03/20/2024 10:36	219890
Arsenic	NELAP	0.0004	0.0010	J	0.0006	mg/L	5	03/14/2024 14:13	219890
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/14/2024 14:13	219890
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	03/14/2024 14:13	219890
Chromium	NELAP	0.0010	0.0015		0.0025	mg/L	5	03/14/2024 14:13	219890
Cobalt	NELAP	0.0001	0.0010	J	0.0004	mg/L	5	03/14/2024 14:13	219890
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/14/2024 14:13	219890
Lithium	*	0.0015	0.0030		0.0159	mg/L	5	03/15/2024 23:11	219890
Molybdenum	NELAP	0.0006	0.0015		0.0036	mg/L	5	03/14/2024 14:13	219890
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	03/15/2024 23:11	219890
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	03/14/2024 14:13	219890
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	03/14/2024 14:01	219856



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Lab ID:** 24030002-011

**Client Sample ID:** Field Duplicate

**Matrix:** GROUNDWATER

**Collection Date:** 03/12/2024 13:27

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385
Radium-228	*	0	0		See Attached	pci/L	1	04/02/2024 15:02	R345385



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### STANDARD METHODS 2510 B FIELD

Batch R344521		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-R344521-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		<b>1410</b>	1412	0	99.6	90	110	03/12/2024	

Batch R344521		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-R344521-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		<b>1410</b>	1412	0	99.7	90	110	03/13/2024	

Batch R344521		SampType: LCS		Units $\mu\text{S/cm}$							
SampID: LCS-R344521-3											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		<b>1400</b>	1412	0	99.2	90	110	03/14/2024	

### SW-846 9040B FIELD

Batch R344521		SampType: LCS		Units							
SampID: LCS-R344521-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		<b>7.05</b>	7.000	0	100.7	98.57	101.4	03/12/2024	

Batch R344521		SampType: LCS		Units							
SampID: LCS-R344521-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		<b>7.09</b>	7.000	0	101.3	98.57	101.4	03/13/2024	

Batch R344521		SampType: LCS		Units							
SampID: LCS-R344521-3											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		<b>7.09</b>	7.000	0	101.3	98.57	101.4	03/14/2024	

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R344358		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	03/13/2024	





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R344358		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>950</b>	1000	0	95.0	90	110	03/13/2024	

Batch R344358		SampType: DUP		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24030866-001ADUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Total Dissolved Solids		20		<b>440</b>				436.0	0.91	03/13/2024		

Batch R344417		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	03/14/2024	

Batch R344417		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>928</b>	1000	0	92.8	90	110	03/14/2024	

Batch R344506		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	03/15/2024	
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	03/15/2024	

Batch R344506		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Total Dissolved Solids		20		<b>956</b>	1000	0	95.6	90	110	03/15/2024	
Total Dissolved Solids		20		<b>968</b>	1000	0	96.8	90	110	03/15/2024	

Batch R344506		SampType: DUP		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24030008-013BDUP												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Total Dissolved Solids		20		<b>310</b>				310.0	0.00	03/15/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R344506		SampType: DUP		Units mg/L				RPD Limit 10			Date Analyzed
SampID: 24030008-014BDUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20		<b>416</b>				408.0	1.94	03/15/2024	

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R344318		SampType: MBLK		Units mg/L				Low Limit		High Limit		Date Analyzed
SampID: ICB/MBLK												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed		
Chloride		4		< 4	0.5000	0	0	-100	100	03/13/2024		

### Batch R344318 SampType: LCS Units mg/L

SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		<b>21</b>	20.00	0	102.8	90	110	03/13/2024

### Batch R344318 SampType: MS Units mg/L

SampID: 24030008-004BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4	E	<b>52</b>	20.00	34.34	87.9	85	115	03/13/2024

### Batch R344318 SampType: MSD Units mg/L

Batch R344318		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 24030008-004BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		4	E	<b>52</b>	20.00	34.34	87.1	51.92	0.31	03/13/2024	

### Batch R344318 SampType: MS Units mg/L

SampID: 24030670-006BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		400		<b>2970</b>	2000	1227	86.9	85	115	03/13/2024

### Batch R344318 SampType: MSD Units mg/L

Batch R344318		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 24030670-006BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Chloride		400		<b>2980</b>	2000	1227	87.5	2965	0.38	03/13/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011**

Batch R344318		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030818-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>37</b>	20.00	19.52	87.8	85	115	03/13/2024	

Batch R344318		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24030818-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>37</b>	20.00	19.52	87.2	37.07	0.30	03/13/2024		

Batch R344318		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030866-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>46</b>	20.00	28.67	88.6	85	115	03/13/2024	

Batch R344318		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24030866-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>47</b>	20.00	28.67	89.4	46.39	0.32	03/13/2024		

Batch R344357		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>&lt; 4</b>	0.5000	0	0	-100	100	03/14/2024	

Batch R344357		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>21</b>	20.00	0	103.2	90	110	03/14/2024	

Batch R344357		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030002-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>22</b>	20.00	2.700	94.4	85	115	03/14/2024	

Batch R344357		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24030002-006AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>21</b>	20.00	2.700	94.0	21.59	0.46	03/14/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R344357		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030008-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		21	20.00	2.250	95.9	85	115	03/14/2024	

Batch R344357		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24030008-002BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		4		22	20.00	2.250	97.0	21.43	0.98	03/14/2024		

Batch R344517		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		< 4	0.5000	0	0	-100	100	03/18/2024	

Batch R344517		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		21	20.00	0	103.4	90	110	03/18/2024	

Batch R344517		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030002-007AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		4		37	20.00	19.45	88.2	85	115	03/18/2024	

Batch R344517		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24030002-007AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		4		37	20.00	19.45	87.4	37.10	0.46	03/18/2024		

Batch R344517		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030008-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Chloride		40		260	200.0	79.21	90.2	85	115	03/18/2024	

Batch R344517		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24030008-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Chloride		40		264	200.0	79.21	92.4	259.6	1.67	03/18/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 9036 (TOTAL)**

Batch R344317		SampType: MBLK		Units mg/L						
SampID: ICB/MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		< 10	6.140	0	0	-100	100	03/13/2024

Batch R344317		SampType: MBLK		Units mg/L						
SampID: MB-R344317										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		< 10	6.140	0	0	-100	100	03/13/2024

Batch R344317		SampType: LCS		Units mg/L						
SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		20	20.00	0	98.4	90	110	03/13/2024

Batch R344317		SampType: LCS		Units mg/L						
SampID: LCS-R344317										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		20	20.00	0	98.4	90	110	03/13/2024

Batch R344317		SampType: MS		Units mg/L						
SampID: 24030008-004BMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		20		74	40.00	37.96	90.9	85	115	03/13/2024

Batch R344317		SampType: MSD		Units mg/L						
SampID: 24030008-004BMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		20		75	40.00	37.96	93.7	74.30	1.52	03/13/2024

Batch R344317		SampType: MS		Units mg/L						
SampID: 24030818-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		20		87	40.00	49.00	94.1	85	115	03/13/2024

Batch R344317		SampType: MSD		Units mg/L						
SampID: 24030818-001AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		20		89	40.00	49.00	100.8	86.65	3.03	03/13/2024





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 9036 (TOTAL)**

Batch R344317		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030866-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>40</b>	20.00	21.62	93.6	85	115	03/13/2024	

Batch R344317		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24030866-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		10		<b>41</b>	20.00	21.62	97.4	40.34	1.87	03/13/2024		

Batch R344355		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	03/14/2024	

Batch R344355		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MB-R344355											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	03/14/2024	

Batch R344355		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>20</b>	20.00	0	99.9	90	110	03/14/2024	

Batch R344355		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-R344355											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>20</b>	20.00	0	99.9	90	110	03/14/2024	

Batch R344355		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030002-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		<b>208</b>	100.0	104.9	102.6	85	115	03/14/2024	

Batch R344355		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24030002-006AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50		<b>202</b>	100.0	104.9	97.6	207.5	2.45	03/14/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 9036 (TOTAL)**

Batch R344355		SampType: MS		Units mg/L							
SampID: 24030008-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10	S	<b>26</b>	20.00	9.440	81.5	85	115	03/14/2024	

Batch R344355		SampType: MSD		Units mg/L							
SampID: 24030008-002BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10	S	<b>26</b>	20.00	9.440	81.4	25.74	0.08	03/14/2024	

Batch R344515		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/18/2024	

Batch R344515		SampType: MBLK		Units mg/L							
SampID: MB-R344515											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		< 10	6.140	0	0	-100	100	03/18/2024	

Batch R344515		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>20</b>	20.00	0	98.0	90	110	03/18/2024	

Batch R344515		SampType: LCS		Units mg/L							
SampID: LCS-R344515											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>20</b>	20.00	0	98.0	90	110	03/18/2024	

Batch R344515		SampType: MS		Units mg/L							
SampID: 24030002-007AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		20	E	<b>108</b>	40.00	74.02	85.6	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							
SampID: 24030002-007AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		20	E	<b>110</b>	40.00	74.02	90.7	108.3	1.85	03/18/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 9036 (TOTAL)**

Batch R344515		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030008-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>30</b>	20.00	12.59	88.2	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24030008-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		10		<b>31</b>	20.00	12.59	90.6	30.24	1.51	03/18/2024		

Batch R344515		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031148-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		<b>197</b>	100.0	109.3	88.1	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24031148-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50		<b>206</b>	100.0	109.3	96.5	197.4	4.13	03/18/2024		

Batch R344515		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031149-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		<b>432</b>	200.0	243.3	94.2	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24031149-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		100		<b>428</b>	200.0	243.3	92.2	431.7	0.95	03/18/2024		

Batch R344515		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031150-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50	E	<b>253</b>	100.0	162.8	90.7	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24031150-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Sulfate		50	E	<b>256</b>	100.0	162.8	93.4	253.5	1.07	03/18/2024		



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### SW-846 9036 (TOTAL)

Batch R344515		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031151-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		50	E	<b>262</b>	100.0	172.9	89.3	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24031151-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Sulfate		50	E	<b>263</b>	100.0	172.9	90.4	262.2	0.41	03/18/2024		

Batch R344515		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031152-008AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		20		<b>82</b>	40.00	45.01	93.3	85	115	03/18/2024	

Batch R344515		SampType: MSD		Units mg/L							RPD Limit 10	Date Analyzed
SampID: 24031152-008AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD			
Sulfate		20		<b>83</b>	40.00	45.01	94.9	82.33	0.77	03/18/2024		

### SW-846 9214 (TOTAL)

Batch R344290		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>&lt; 0.10</b>	0.0500	0	0	-100	100	03/13/2024	

Batch R344290		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>0.92</b>	1.000	0	92.2	90	110	03/13/2024	

Batch R344290		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030002-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Fluoride		0.10		<b>2.73</b>	2.000	0.5760	107.6	75	125	03/13/2024	



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 9214 (TOTAL)**

Batch R344290		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24030002-011AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		<b>2.80</b>	2.000	0.5760	111.1	2.729	2.50	03/13/2024	

Batch R344388		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>&lt; 0.10</b>	0.0500	0	0	-100	100	03/14/2024	

Batch R344388		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>1.09</b>	1.000	0	108.7	90	110	03/14/2024	

Batch R344388		SampType: MS		Units mg/L							
SampID: 24030002-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>2.87</b>	2.000	0.5390	116.5	75	125	03/14/2024	

Batch R344388		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24030002-006AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		<b>2.94</b>	2.000	0.5390	119.8	2.869	2.31	03/14/2024	

Batch R344388		SampType: MS		Units mg/L							
SampID: 24030002-010AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>1.98</b>	2.000	0	98.8	75	125	03/15/2024	

Batch R344388		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24030002-010AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		<b>2.04</b>	2.000	0	102.0	1.976	3.24	03/15/2024	

Batch R344388		SampType: MS		Units mg/L							
SampID: 24031032-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>3.06</b>	2.000	0.7840	113.7	75	125	03/14/2024	





## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### SW-846 9214 (TOTAL)

Batch R344388		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24031032-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		<b>3.00</b>	2.000	0.7840	111.0	3.057	1.72	03/14/2024	

Batch R344388		SampType: MS		Units mg/L							
SampID: 24031115-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>2.75</b>	2.000	0.7170	101.6	75	125	03/15/2024	

Batch R344388		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24031115-002AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		<b>2.72</b>	2.000	0.7170	100.3	2.749	0.95	03/15/2024	

Batch R344388		SampType: MS		Units mg/L							
SampID: 24031115-008AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>2.88</b>	2.000	0.8430	101.7	75	125	03/15/2024	

Batch R344388		SampType: MSD		Units mg/L				RPD Limit 15			
SampID: 24031115-008AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.10		<b>2.76</b>	2.000	0.8430	95.7	2.877	4.30	03/15/2024	

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 219890		SampType: MBLK		Units mg/L							
SampID: MBLK-219890											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>&lt; 0.0025</b>	0.0007	0	0	-100	100	03/14/2024	
Boron		0.0200		<b>&lt; 0.0200</b>	0.0090	0	0	-100	100	03/14/2024	
Calcium		0.100	S	<b>0.484</b>	0.0350	0	1383	-100	100	03/14/2024	

Batch 219890		SampType: LCS		Units mg/L							
SampID: LCS-219890											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.04</b>	2.000	0	102.0	85	115	03/14/2024	
Boron		0.0200		<b>0.526</b>	0.5000	0	105.3	85	115	03/14/2024	
Calcium		0.100	B	<b>2.75</b>	2.500	0	110.1	85	115	03/14/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 3005A, 6010B, METALS BY ICP (TOTAL)**

Batch 219890		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030002-011CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.15</b>	2.000	0.05440	104.8	75	125	03/14/2024	
Boron		0.0200		<b>0.555</b>	0.5000	0.01230	108.6	75	125	03/14/2024	
Calcium		0.100	BS	<b>16.1</b>	2.500	12.79	131.6	75	125	03/14/2024	

Batch 219890		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 24030002-011CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Barium		0.0025		<b>2.17</b>	2.000	0.05440	105.8	2.150	0.93	03/14/2024		
Boron		0.0200		<b>0.559</b>	0.5000	0.01230	109.4	0.5553	0.74	03/14/2024		
Calcium		0.100	BS	<b>16.1</b>	2.500	12.79	132.4	16.08	0.12	03/14/2024		

Batch 219890		SampType: MS		Units mg/L							Date Analyzed
SampID: 24030922-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0200		<b>1.02</b>	0.5000	0.4727	109.4	75	125	03/14/2024	

Batch 219890		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 24030922-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Boron		0.0200		<b>1.03</b>	0.5000	0.4727	111.1	1.020	0.83	03/14/2024		

Batch 219947		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-219947											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>&lt; 0.0025</b>	0.0007	0	0	-100	100	03/15/2024	
Boron		0.0200		<b>&lt; 0.0200</b>	0.0090	0	0	-100	100	03/15/2024	
Calcium		0.100		<b>&lt; 0.100</b>	0.0350	0	0	-100	100	03/15/2024	

Batch 219947		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-219947											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.03</b>	2.000	0	101.5	85	115	03/15/2024	
Boron		0.0200		<b>0.503</b>	0.5000	0	100.5	85	115	03/15/2024	
Calcium		0.100		<b>2.54</b>	2.500	0	101.6	85	115	03/15/2024	



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 3005A, 6010B, METALS BY ICP (TOTAL)**

Batch 220109		SampType: MBLK		Units mg/L							
SampID: MBLK-220109											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	03/20/2024	
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	03/20/2024	
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/20/2024	

Batch 220109		SampType: LCS		Units mg/L							
SampID: LCS-220109											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		2.01	2.000	0	100.5	85	115	03/20/2024	
Boron		0.0200		0.485	0.5000	0	97.1	85	115	03/20/2024	
Calcium		0.100		2.44	2.500	0	97.7	85	115	03/20/2024	

Batch 220109		SampType: MS		Units mg/L							
SampID: 24030002-004CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		1.98	2.000	0.09700	94.0	75	125	03/20/2024	
Boron		0.0200		0.535	0.5000	0.06760	93.4	75	125	03/20/2024	
Calcium		0.100	S	36.8	2.500	35.41	57.6	75	125	03/20/2024	

Batch 220109		SampType: MSD		Units mg/L						RPD Limit 20		Date Analyzed
SampID: 24030002-004CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Barium		0.0025		1.96	2.000	0.09700	92.9	1.976	1.06	03/20/2024		
Boron		0.0200		0.531	0.5000	0.06760	92.7	0.5346	0.69	03/20/2024		
Calcium		0.100	S	36.4	2.500	35.41	41.6	36.85	1.09	03/20/2024		

Batch 220109		SampType: MS		Units mg/L							
SampID: 24031152-008BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Boron		0.0200		3.29	0.5000	2.798	99.0	75	125	03/20/2024	

Batch 220109		SampType: MSD		Units mg/L						RPD Limit 20		Date Analyzed
SampID: 24031152-008BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Boron		0.0200		3.27	0.5000	2.798	94.9	3.293	0.61	03/20/2024		



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 3005A, 6010B, METALS BY ICP (TOTAL)**

**Batch 220172**      **SampType: MBLK**      Units mg/L

SampID: MBLK-220172

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	03/21/2024
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	03/22/2024
Barium		0.0025		< 0.0025	0.0007	0	0	-100	100	03/25/2024
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	03/25/2024
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	03/21/2024
Boron		0.0200		< 0.0200	0.0090	0	0	-100	100	03/22/2024
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/25/2024
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/22/2024
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/21/2024

**Batch 220172**      **SampType: LCS**      Units mg/L

SampID: LCS-220172

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		1.96	2.000	0	98.2	85	115	03/25/2024
Barium		0.0025		1.90	2.000	0	94.9	85	115	03/22/2024
Barium		0.0025		2.04	2.000	0	102.0	85	115	03/21/2024
Boron		0.0200		0.482	0.5000	0	96.4	85	115	03/25/2024
Boron		0.0200		0.496	0.5000	0	99.2	85	115	03/21/2024
Boron		0.0200		0.468	0.5000	0	93.5	85	115	03/22/2024
Calcium		0.100		2.42	2.500	0	96.9	85	115	03/22/2024
Calcium		0.100		2.47	2.500	0	99.0	85	115	03/25/2024
Calcium		0.100		2.57	2.500	0	102.9	85	115	03/21/2024



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 219890**      **SampType: MBLK**      Units mg/L  
 SampID: MBLK-219890

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/20/2024
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/14/2024
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/14/2024
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/14/2024
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/14/2024
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/14/2024
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/14/2024
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/14/2024
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/14/2024
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/14/2024
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/14/2024

**Batch 219890**      **SampType: LCS**      Units mg/L  
 SampID: LCS-219890

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.503	0.5000	0	100.7	80	120	03/20/2024
Arsenic		0.0010		0.526	0.5000	0	105.3	85	115	03/14/2024
Beryllium		0.0010		0.0531	0.0500	0	106.2	85	115	03/14/2024
Cadmium		0.0010		0.0563	0.0500	0	112.5	85	115	03/14/2024
Chromium		0.0015		0.198	0.2000	0	98.8	85	115	03/14/2024
Cobalt		0.0010		0.490	0.5000	0	97.9	85	115	03/14/2024
Lead		0.0010		0.493	0.5000	0	98.7	85	115	03/14/2024
Lithium	*	0.0030		0.531	0.5000	0	106.2	85	115	03/14/2024
Molybdenum		0.0015		0.471	0.5000	0	94.1	85	115	03/14/2024
Selenium		0.0010		0.484	0.5000	0	96.8	85	115	03/14/2024
Thallium		0.0020		0.248	0.2500	0	99.0	85	115	03/14/2024





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 219890**      **SampType: MS**      Units mg/L

SampID: 24030002-011CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.549</b>	0.5000	0	109.8	75	125	03/20/2024
Arsenic		0.0010		<b>0.512</b>	0.5000	0.0005940	102.2	75	125	03/14/2024
Beryllium		0.0010		<b>0.0535</b>	0.0500	0	107.0	75	125	03/14/2024
Cadmium		0.0010		<b>0.0563</b>	0.0500	0	112.5	75	125	03/14/2024
Chromium		0.0015		<b>0.198</b>	0.2000	0.002497	97.7	75	125	03/14/2024
Cobalt		0.0010		<b>0.469</b>	0.5000	0.0003830	93.7	75	125	03/14/2024
Lead		0.0010		<b>0.502</b>	0.5000	0	100.3	75	125	03/14/2024
Lithium	*	0.0030		<b>0.515</b>	0.5000	0.01588	99.8	75	125	03/15/2024
Molybdenum		0.0015		<b>0.471</b>	0.5000	0.003606	93.6	75	125	03/14/2024
Selenium		0.0010		<b>0.502</b>	0.5000	0	100.4	75	125	03/15/2024
Thallium		0.0020		<b>0.258</b>	0.2500	0	103.2	75	125	03/14/2024

**Batch 219890**      **SampType: MSD**      Units mg/L

RPD Limit **20**

SampID: 24030002-011CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		<b>0.536</b>	0.5000	0	107.2	0.5489	2.41	03/20/2024
Arsenic		0.0010		<b>0.560</b>	0.5000	0.0005940	111.9	0.5115	9.02	03/14/2024
Beryllium		0.0010		<b>0.0534</b>	0.0500	0	106.9	0.05350	0.12	03/14/2024
Cadmium		0.0010		<b>0.0583</b>	0.0500	0	116.5	0.05627	3.47	03/14/2024
Chromium		0.0015		<b>0.199</b>	0.2000	0.002497	98.5	0.1980	0.76	03/14/2024
Cobalt		0.0010		<b>0.473</b>	0.5000	0.0003830	94.5	0.4691	0.80	03/14/2024
Lead		0.0010		<b>0.502</b>	0.5000	0	100.4	0.5017	0.06	03/14/2024
Lithium	*	0.0030		<b>0.537</b>	0.5000	0.01588	104.1	0.5149	4.12	03/15/2024
Molybdenum		0.0015		<b>0.498</b>	0.5000	0.003606	98.8	0.4714	5.42	03/14/2024
Selenium		0.0010		<b>0.523</b>	0.5000	0	104.6	0.5022	4.08	03/15/2024
Thallium		0.0020		<b>0.253</b>	0.2500	0	101.2	0.2580	1.99	03/14/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)**

**Batch 219947**      **SampType: MBLK**      Units mg/L  
 SampID: MBLK-219947

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/20/2024
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/16/2024
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/16/2024
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/16/2024
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/16/2024
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/16/2024
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/16/2024
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/16/2024
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/16/2024
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/16/2024
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/16/2024

**Batch 219947**      **SampType: LCS**      Units mg/L  
 SampID: LCS-219947

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.545	0.5000	0	109.0	85	115	03/20/2024
Arsenic		0.0010		0.539	0.5000	0	107.7	85	115	03/18/2024
Arsenic		0.0010	S	0.579	0.5000	0	115.7	85	115	03/16/2024
Beryllium		0.0010		0.0519	0.0500	0	103.7	85	115	03/16/2024
Cadmium		0.0010	S	0.0601	0.0500	0	120.1	85	115	03/16/2024
Chromium		0.0015		0.204	0.2000	0	102.1	85	115	03/16/2024
Cobalt		0.0010		0.518	0.5000	0	103.5	85	115	03/16/2024
Lead		0.0010		0.493	0.5000	0	98.6	85	115	03/16/2024
Lithium	*	0.0030		0.524	0.5000	0	104.8	85	115	03/16/2024
Molybdenum		0.0015		0.483	0.5000	0	96.5	85	115	03/16/2024
Selenium		0.0010		0.537	0.5000	0	107.4	85	115	03/16/2024
Thallium		0.0020		0.256	0.2500	0	102.5	85	115	03/16/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 220109**      **SampType: MBLK**      Units mg/L

SampID: MBLK-220109

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	03/22/2024
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	03/21/2024
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	03/22/2024
Cadmium		0.0010		< 0.0010	0.0001	0	0	-100	100	03/21/2024
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	03/21/2024
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	03/21/2024
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	03/22/2024
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	03/21/2024
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	03/21/2024
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	03/21/2024
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	03/21/2024

**Batch 220109**      **SampType: LCS**      Units mg/L

SampID: LCS-220109

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.513	0.5000	0	102.6	80	120	03/22/2024
Arsenic		0.0010		0.536	0.5000	0	107.2	80	120	03/21/2024
Beryllium		0.0010		0.0530	0.0500	0	106.0	80	120	03/22/2024
Cadmium		0.0010		0.0538	0.0500	0	107.7	80	120	03/21/2024
Chromium		0.0015		0.210	0.2000	0	105.2	80	120	03/21/2024
Cobalt		0.0010		0.515	0.5000	0	103.0	80	120	03/21/2024
Lead		0.0010		0.545	0.5000	0	109.0	80	120	03/22/2024
Lithium	*	0.0030		0.534	0.5000	0	106.9	80	120	03/21/2024
Molybdenum		0.0015		0.487	0.5000	0	97.3	80	120	03/21/2024
Selenium		0.0010		0.571	0.5000	0	114.2	80	120	03/21/2024
Thallium		0.0020		0.245	0.2500	0	97.8	80	120	03/21/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)**

**Batch 220109**      **SampType: MS**      Units mg/L  
 SampID: 24030002-004CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.521</b>	0.5000	0	104.1	75	125	03/22/2024
Arsenic		0.0010		<b>0.543</b>	0.5000	0.008518	106.8	75	125	03/21/2024
Beryllium		0.0010		<b>0.0509</b>	0.0500	0	101.8	75	125	03/22/2024
Cadmium		0.0010		<b>0.0546</b>	0.0500	0	109.2	75	125	03/21/2024
Chromium		0.0015		<b>0.209</b>	0.2000	0	104.6	75	125	03/21/2024
Cobalt		0.0010		<b>0.607</b>	0.5000	0.08877	103.7	75	125	03/21/2024
Lead		0.0010		<b>0.526</b>	0.5000	0	105.2	75	125	03/22/2024
Lithium	*	0.0030		<b>0.540</b>	0.5000	0.01962	104.2	75	125	03/21/2024
Molybdenum		0.0015		<b>0.509</b>	0.5000	0	101.9	75	125	03/21/2024
Selenium		0.0010		<b>0.562</b>	0.5000	0.0009374	112.2	75	125	03/21/2024
Thallium		0.0020		<b>0.244</b>	0.2500	0	97.6	75	125	03/21/2024

**Batch 220109**      **SampType: MSD**      Units mg/L  
 SampID: 24030002-004CMSD

RPD Limit **20**

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		<b>0.503</b>	0.5000	0	100.6	0.5206	3.39	03/22/2024
Arsenic		0.0010		<b>0.515</b>	0.5000	0.008518	101.4	0.5427	5.16	03/21/2024
Beryllium		0.0010		<b>0.0515</b>	0.0500	0	103.1	0.05091	1.25	03/22/2024
Cadmium		0.0010		<b>0.0543</b>	0.0500	0	108.5	0.05459	0.59	03/21/2024
Chromium		0.0015		<b>0.198</b>	0.2000	0	99.2	0.2092	5.31	03/21/2024
Cobalt		0.0010		<b>0.587</b>	0.5000	0.08877	99.6	0.6073	3.47	03/21/2024
Lead		0.0010		<b>0.501</b>	0.5000	0	100.1	0.5261	4.97	03/22/2024
Lithium	*	0.0030		<b>0.526</b>	0.5000	0.01962	101.3	0.5404	2.69	03/21/2024
Molybdenum		0.0015		<b>0.495</b>	0.5000	0	99.0	0.5093	2.87	03/21/2024
Selenium		0.0010		<b>0.533</b>	0.5000	0.0009374	106.5	0.5621	5.24	03/21/2024
Thallium		0.0020		<b>0.247</b>	0.2500	0	98.6	0.2441	1.00	03/21/2024

**Batch 220172**      **SampType: MBLK**      Units mg/L  
 SampID: MBLK-220172

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium		0.0010		<b>&lt; 0.0010</b>	0.0001	0	0	-100	100	03/21/2024

**Batch 220172**      **SampType: LCS**      Units mg/L  
 SampID: LCS-220172

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium		0.0010		<b>0.0480</b>	0.0500	0	96.1	80	120	03/21/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 7470A (TOTAL)**

Batch 219856		SampType: MBLK		Units mg/L							
SampID: MBLK-219856											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/14/2024	

Batch 219856		SampType: LCS		Units mg/L							
SampID: LCS-219856											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00451	0.0050	0	90.2	85	115	03/14/2024	

Batch 219856		SampType: MS		Units mg/L							
SampID: 24030631-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00473	0.0050	0	94.6	75	125	03/14/2024	

Batch 219856		SampType: MSD		Units mg/L							
SampID: 24030631-001CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		0.00476	0.0050	0	95.2	0.004729	0.69	03/14/2024	

Batch 219856		SampType: MS		Units mg/L							
SampID: 24030823-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00488	0.0050	0	97.5	75	125	03/14/2024	

Batch 219856		SampType: MSD		Units mg/L							
SampID: 24030823-011AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		0.00482	0.0050	0	96.3	0.004877	1.25	03/14/2024	

Batch 220165		SampType: MBLK		Units mg/L							
SampID: MBLK-220165											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	03/21/2024	

Batch 220165		SampType: LCS		Units mg/L							
SampID: LCS-220165											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00433	0.0050	0	86.6	85	115	03/21/2024	





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 7470A (TOTAL)**

Batch 220165		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031081-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00498</b>	0.0050	0	99.5	75	125	03/21/2024	

Batch 220165		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24031081-001BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		<b>0.00512</b>	0.0050	0	102.4	0.004976	2.80	03/21/2024		

Batch 220165		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031148-004BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00764</b>	0.0100	0	76.4	75	125	03/21/2024	

Batch 220165		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24031148-004BMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		<b>0.00803</b>	0.0100	0	80.3	0.007644	4.91	03/21/2024		

Batch 220166		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-220166											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>&lt; 0.00020</b>	0.0001	0	0	-100	100	03/21/2024	

Batch 220166		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-220166											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00451</b>	0.0050	0	90.2	85	115	03/21/2024	

Batch 220166		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031310-001DMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00462</b>	0.0050	0	92.4	75	125	03/21/2024	

Batch 220166		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24031310-001DMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		<b>0.00470</b>	0.0050	0	94.1	0.004620	1.82	03/21/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**SW-846 7470A (TOTAL)**

Batch 220166		SampType: MS		Units mg/L							Date Analyzed
SampID: 24031502-002AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00570</b>	0.0050	0	114.0	75	125	03/22/2024	

Batch 220166		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24031502-002AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Mercury		0.00020		<b>0.00576</b>	0.0050	0	115.2	0.005702	1.02	03/22/2024		



# Receiving Check List

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24030002

**Client Project:** Groundwater Monitoring

**Report Date:** 06-May-24

**Carrier:** Tracy Carroll

**Received By:** LEH

**Completed by:**

**Reviewed by:**

**On:**

12-Mar-24

Nick Reed

**On:**

15-Mar-24

Ellie Hopkins

**Pages to follow:** Chain of custody

Extra pages included

- |   |   |   |                                      |                                  |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             | Not Present <input type="checkbox"/> | Temp °C <b>11.1</b>              |
| Type of thermal preservation?                           | None <input type="checkbox"/>             | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/>    | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Reported field parameters measured:                     | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/>            | NA <input type="checkbox"/>          |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |                              |  |   |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace?  | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No VOA vials <input checked="" type="checkbox"/>      |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/>                           |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>                |

**Any No responses must be detailed below or on the COC.**

Samples were received on 3/12/24 at 16:34 on ice [11.1C - LTG#5]. pH strip #90719. - LM/nickreed - 3/12/2024 5:18:05 PM

Samples were received on 3/13/24 at 1845 on ice [6.5C - LTG5]. pH strip #96651. - ES/amberdilallo - 3/14/2024 8:21:50 AM

Samples were received on 3/15/24 at 0800 on ice [5.5C - LTG5]. Additional Nitric Acid (96331) was needed upon arrival at the laboratory for EP-3. pH strip #96651. - amberdilallo - 3/15/2024 9:02:17 AM

# CHAIN OF CUSTODY

pg. 1 of 2 Work order # 24030002

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

<b>Client:</b> Southern Illinois Power Cooperation <b>Address:</b> 11543 Lake of Egypt Road <b>City / State / Zip:</b> Marion, IL 62959 <b>Contact:</b> Jason McLaurin <b>Phone:</b> (618) 964-1448 <b>E-Mail:</b> jmclaurin@sipower.org <b>Fax:</b>	<b>Samples on:</b> <input checked="" type="checkbox"/> ICE <input type="checkbox"/> BLUE ICE <input type="checkbox"/> NO ICE <span style="float: right;">11.1 °C LTG# <u>5</u></span> <b>Preserved in:</b> <input type="checkbox"/> LAB <input checked="" type="checkbox"/> FIELD <span style="float: right;"><b>FOR LAB USE ONLY</b></span> <b>Lab Notes:</b> 90219 um 3/12
--	--

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl  
 Field Parameters = Elevations, Purge Volume, pH, Conductivity, Temperature, DO, ORP, and Turbidity

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																		
Groundwater Monitoring		TCarroll / Danny Crump		Aqueous	Groundwater	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS										
Results Requested	Billing Instructions	# and Type of Containers																						
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)		UNP	HNO3																					
Lab Use Only	Sample Identification	Date/Time Sampled																						
24030002-001	EBG	3/12/24 1327		1	3																			
002	EP-1			1	3																			
003	EP-2			1	3																			
004	EP-3			1	3																			
005	EP-4			1	3																			
006	EP-5			1	3																			
007	EP-6			1	3																			
008	EP-7			1	3																			
009	Equipment Blank			1	3																			
010	Field Blank			1	3																			

Relinquished By	Date/Time	Received By	Date/Time
<i>Jason Carroll</i>	3/12/24 9:34	<i>[Signature]</i>	3/12/24 16:34







# CHAIN OF CUSTODY

pg. 1 of 2 Work order # 24030002

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

**Client:** Southern Illinois Power Cooperation  
**Address:** 11543 Lake of Egypt Road  
**City / State / Zip:** Marion, IL 62959  
**Contact:** Jason McLaurin **Phone:** (618) 964-1448  
**E-Mail:** jmcLaurin@sipower.org **Fax:** \_\_\_\_\_

**Samples on:**  ICE  BLUE ICE  NO ICE 5.5 °C **LTG#** 5  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:** pH ✓ 9.6651  
added HNO<sub>3</sub> (9.6331) to EP3 (250ml) 2<sup>6</sup> 3/15/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl  
 Field Parameters = Elevations, Purge Volume, pH, Conductivity, Temperature, DO, ORP, and Turbidity

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																		
Groundwater Monitoring		T. Carroll / D. Camp		Aqueous	Groundwater	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Raz26/228	Sulfate	TDS										
Results Requested	Billing Instructions	# and Type of Containers																						
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge) <input type="checkbox"/> Other _____ <input type="checkbox"/> 3 Day (50% Surcharge)		UNP	HNO3																					
Lab Use Only	Sample Identification	Date/Time Sampled																						
<u>24030002-001</u>	EBG		1	3																				
<u>002</u>	EP-1		1	3																				
<u>003</u>	EP-2		1	3																				
<u>004</u>	EP-3	<u>3/14/24 1408</u>	1	3																				
<u>005</u>	EP-4	<u>3/14/24 1106</u>	1	3																				
<u>006</u>	EP-5		1	3																				
<u>007</u>	EP-6	<u>3/14/24 1154</u>	1	3																				
<u>008</u>	EP-7		1	3																				
<u>009</u>	Equipment Blank		1	3																				
<u>010</u>	Field Blank		1	3																				

Relinquished By	Date/Time	Received By	Date/Time
<u>T. Carroll</u>	<u>3/15/24 800</u>	<u>[Signature]</u>	<u>3/15/24 8:00</u>



Summit Environmental Technologies, Inc.  
3310 Win St.  
Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

April 05, 2024

Elizabeth Hurley  
TEKLAB Inc,  
5445 Horseshoe lake Road  
Collinsville, IL 62234  
TEL:  
FAX:  
RE: 24030002

Order No.: 24031336

Dear Elizabeth Hurley:

Summit Environmental Technologies, Inc. received 11 sample(s) on 3/18/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Jennifer M. Woolf'.

Jennifer Woolf  
Project Manager  
3310 Win St.  
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



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## Case Narrative

WO#: 24031336  
Date: 4/5/2024

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**CLIENT:** TEKLAB Inc,  
**Project:** 24030002

---

### WorkOrder Narrative:

24031336: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

### Analytical Sequence Sample Notes:

24031336-001A Radium-228\_NPW(904.0): Parent sample and duplicate exhibited a high RPD, both parent sample and duplicate are below the PQL.

---

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

### Qualifiers

<b>U</b>	The compound was analyzed for but was not detected above the MDL.
<b>J</b>	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
<b>H</b>	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
<b>D</b>	The result is reported from a dilution.
<b>E</b>	The result exceeded the linear range of the calibration or is estimated due to interference.
<b>MC</b>	The result is below the Minimum Compound Limit.
<b>*</b>	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
<b>m</b>	Manual integration was used to determine the area response.
<b>d</b>	Manual integration in which peak was deleted
<b>N</b>	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
<b>P</b>	The second column confirmation exceeded 25% difference.
<b>C</b>	The result has been confirmed by GC/MS.
<b>X</b>	The result was not confirmed when GC/MS Analysis was performed.
<b>B</b>	The analyte was detected in the Method Blank at a concentration greater than the RL.
<b>MB+</b>	The analyte was detected in the Method Blank at a concentration greater than the MDL.
<b>G</b>	The ICB or CCB contained reportable amounts of analyte.
<b>QC-/+</b>	The CCV recovery failed low (-) or high (+).
<b>R/QDR</b>	The RPD was outside of accepted recovery limits.
<b>QL-/+</b>	The LCS or LCSD recovery failed low (-) or high (+).
<b>QLR</b>	The LCS/LCSD RPD was outside of accepted recovery limits.
<b>QM-/+</b>	The MS or MSD recovery failed low (-) or high (+).
<b>QMR</b>	The MS/MSD RPD was outside of accepted recovery limits.
<b>QV-/+</b>	The ICV recovery failed low (-) or high (+).
<b>S</b>	The spike result was outside of accepted recovery limits.
<b>W</b>	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
<b>Z</b>	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

### Acronyms

<b>ND</b>	Not Detected	<b>RL</b>	Reporting Limit
<b>QC</b>	Quality Control	<b>MDL</b>	Method Detection Limit
<b>MB</b>	Method Blank	<b>LOD</b>	Level of Detection
<b>LCS</b>	Laboratory Control Sample	<b>LOQ</b>	Level of Quantitation
<b>LCSD</b>	Laboratory Control Sample Duplicate	<b>PQL</b>	Practical Quantitation Limit
<b>QCS</b>	Quality Control Sample	<b>CRQL</b>	Contract Required Quantitation Limit
<b>DUP</b>	Duplicate	<b>PL</b>	Permit Limit
<b>MS</b>	Matrix Spike	<b>RegLvl</b>	Regulatory Limit
<b>MSD</b>	Matrix Spike Duplicate	<b>MCL</b>	Maximum Contamination Limit
<b>RPD</b>	Relative Percent Different	<b>MinCL</b>	Minimum Compound Limit
<b>ICV</b>	Initial Calibration Verification	<b>RA</b>	Reanalysis
<b>ICB</b>	Initial Calibration Blank	<b>RE</b>	Reextraction
<b>CCV</b>	Continuing Calibration Verification	<b>TIC</b>	Tentatively Identified Compound
<b>CCB</b>	Continuing Calibration Blank	<b>RT</b>	Retention Time
<b>RLC</b>	Reporting Limit Check	<b>CF</b>	Calibration Factor

**This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.**





Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

**Workorder**  
**Sample Summary**  
 WO#: **24031336**  
**05-Apr-24**

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24031336-001	24030002-001		3/12/2024 1:27:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-002	24030002-002		3/13/2024 1:04:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-003	24030002-003		3/13/2024 3:27:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-004	24030002-004		3/14/2024 2:08:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-005	24030002-005		3/14/2024 4:06:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-006	24030002-006		3/13/2024 10:35:00 AM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-007	24030002-007		3/14/2024 11:54:00 AM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-008	24030002-008		3/14/2024 1:40:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-009	24030002-009		3/14/2024 4:15:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-010	24030002-010		3/14/2024 3:50:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water
24031336-011	24030002-011		3/12/2024 1:27:00 PM	3/18/2024 10:00:00 AM	Non-Potable Water



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# DATES REPORT

WO#: 24031336

05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24031336-001A	24030002-001	3/12/2024 1:27:00 PM	Non-Potable Water	Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-002A	24030002-002	3/13/2024 1:04:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-003A	24030002-003	3/13/2024 3:27:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-004A	24030002-004	3/14/2024 2:08:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-005A	24030002-005	3/14/2024 4:06:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-006A	24030002-006	3/13/2024 10:35:00 AM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-007A	24030002-007	3/14/2024 11:54:00 AM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-008A	24030002-008	3/14/2024 1:40:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM

Original



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# DATES REPORT

WO#: 24031336  
 05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24031336-008A	24030002-008	3/14/2024 1:40:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-009A	24030002-009	3/14/2024 4:15:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-010A	24030002-010	3/14/2024 3:50:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM
24031336-011A	24030002-011	3/12/2024 1:27:00 PM		Combined Radium (EPA903+904)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-226 (EPA 903.0)		3/21/2024 10:10:00 PM	4/3/2024 10:38:00 AM
				Radium-228 (EPA 904.0)		3/21/2024 10:10:00 PM	4/2/2024 3:02:00 PM

Original



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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-001  
**Client Sample ID:** 24030002-001

**Collection Date:** 3/12/2024 1:27:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.73	2.00	U	pCi/L	± 0.510	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.04	1.00	U	pCi/L	± 0.0600	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.690	1.00	JQDR	pCi/L	± 0.450	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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Website: <http://www.settek.com>

# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-002  
**Client Sample ID:** 24030002-002

**Collection Date:** 3/13/2024 1:04:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.44	2.00	U	pCi/L	± 0.620	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.01	1.00	U	pCi/L	± 0.0600	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	1.43	1.00		pCi/L	± 0.560	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original





Summit Environmental Technologies, Inc.  
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 Website: <http://www.settek.com>

# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-003  
**Client Sample ID:** 24030002-003

**Collection Date:** 3/13/2024 3:27:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.05	2.00	U	pCi/L	± 0.640	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.21	1.00	U	pCi/L	± 0.100	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.840	1.00	J	pCi/L	± 0.540	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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 Website: <http://www.settek.com>

# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-004  
**Client Sample ID:** 24030002-004

**Collection Date:** 3/14/2024 2:08:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.67	2.00	U	pCi/L	± 0.460	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-226	0.4	1.00	U	pCi/L	± 0.140	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-228	0.27	1.00	U	pCi/L	± 0.320	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-005  
**Client Sample ID:** 24030002-005

**Collection Date:** 3/14/2024 4:06:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.14	2.00	U	pCi/L	± 0.620	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.19	1.00	U	pCi/L	± 0.100	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.950	1.00	J	pCi/L	± 0.520	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-006  
**Client Sample ID:** 24030002-006

**Collection Date:** 3/13/2024 10:35:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.98	2.00	U	pCi/L	± 0.550	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.16	1.00	U	pCi/L	± 0.100	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.820	1.00	J	pCi/L	± 0.450	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-007  
**Client Sample ID:** 24030002-007

**Collection Date:** 3/14/2024 11:54:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.13	2.00	U	pCi/L	± 0.590	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.1	1.00	U	pCi/L	± 0.0900	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	1.03	1.00		pCi/L	± 0.500	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original





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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-008  
**Client Sample ID:** 24030002-008

**Collection Date:** 3/14/2024 1:40:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.46	2.00	U	pCi/L	± 0.670	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-226	0.56	1.00	U	pCi/L	± 0.160	1	4/3/2024 10:38:00 AM
Yield	0.990					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0</b>	<b>E903-904</b>	Analyst: <b>DHF</b>	
Radium-228	0.900	1.00	J	pCi/L	± 0.510	1	4/2/2024 3:02:00 PM
Yield	0.970					1	4/2/2024 3:02:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-009  
**Client Sample ID:** 24030002-009

**Collection Date:** 3/14/2024 4:15:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.16	2.00	U	pCi/L	± 0.430	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.05	1.00	U	pCi/L	± 0.0600	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.11	1.00	U	pCi/L	± 0.370	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-010  
**Client Sample ID:** 24030002-010

**Collection Date:** 3/14/2024 3:50:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.44	2.00	U	pCi/L	± 0.430	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.05	1.00	U	pCi/L	± 0.0600	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.39	1.00	U	pCi/L	± 0.370	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: 24031336

Date Reported: 4/5/2024

**CLIENT:** TEKLAB Inc,  
**Project:** 24030002  
**Lab ID:** 24031336-011  
**Client Sample ID:** 24030002-011

**Collection Date:** 3/12/2024 1:27:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.37	2.00	U	pCi/L	± 0.460	1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.1	1.00	U	pCi/L	± 0.0900	1	4/3/2024 10:38:00 AM
Yield	1.00					1	4/3/2024 10:38:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.27	1.00	U	pCi/L	± 0.370	1	4/2/2024 3:02:00 PM
Yield	1.00					1	4/2/2024 3:02:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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## QC SUMMARY REPORT

WO#: 24031336  
 05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

**BatchID:** 73976

Sample ID: <b>24031336-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183079</b>						
Client ID: <b>24030002-001</b>	Batch ID: <b>73976</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>4/2/2024</b>	SeqNo: <b>4962414</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.28	1.00		0	0			0.6900	200	30	RU
Yield	1.00			0	0			1.000	0		

Sample ID: <b>24031336-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183079</b>						
Client ID: <b>24030002-002</b>	Batch ID: <b>73976</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>4/2/2024</b>	SeqNo: <b>4962416</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.56	1.00		0	0			1.430	8.70	30	
Yield	1.00			0	0			1.000	0		

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec





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# QC SUMMARY REPORT

WO#: 24031336  
 05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

**BatchID:** 73976

Sample ID: <b>MB-73976</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183079</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73976</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>4/2/2024</b>	SeqNo: <b>4962407</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: <b>LCS-73976</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183079</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73976</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>4/2/2024</b>	SeqNo: <b>4962408</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.66	1.00	5.000	0	73.2	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-73976</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183079</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>73976</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>4/2/2024</b>	SeqNo: <b>4962409</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.47	1.00	5.000	0	69.4	50	130	3.660	5.33	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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 Website: <http://www.settek.com>

# QC SUMMARY REPORT

WO#: 24031336  
 05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

**BatchID:** 73976

Sample ID: <b>RLC-73976</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183079</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>73976</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>4/2/2024</b>	SeqNo: <b>4962411</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.45	1.00	1.000	0	145	50	150				
Yield	1.00			0	0						

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24031336

05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

**BatchID:** 73976

Sample ID: <b>24031336-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>24030002-001</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962722</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.07	1.00						0	0	30	U
Yield	1.00							1.000	0	0	

Sample ID: <b>24031336-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>24030002-002</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962724</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.14	1.00						0	0	30	U
Yield	1.00							1.000	0	0	

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

# QC SUMMARY REPORT

WO#: 24031336

05-Apr-24

**Client:** TEKLAB Inc,  
**Project:** 24030002

**BatchID:** 73976

Sample ID: <b>MB-73976</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962715</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: <b>LCS-73976</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962716</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.16	1.00	5.000	0	103	70	130				

Sample ID: <b>LCSD-73976</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962717</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.81	1.00	5.000	0	96.2	70	130	5.160	7.02	20	

Sample ID: <b>RLC-73976</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962719</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24031336

05-Apr-24

**Client:** TEKLAB Inc,

**Project:** 24030002

**BatchID:** 73976

Sample ID: <b>RLC-73976</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962719</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	0.750	1.00	1.000	0	75.0	50	150				J

Sample ID: <b>RLCD-73976</b>	SampType: <b>RLC</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>3/21/2024</b>	RunNo: <b>183087</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>73976</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>4/3/2024</b>	SeqNo: <b>4962720</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	1.39	1.00	1.000	0	139	50	150				

**Qualifiers:**

H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



# TEKLAB, INC. Chain of Custody

24031336

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES  NO  With:  Ice  Blue Ice Preserved in:  Lab  Field

**Teklab Inc**  
5445 Horseshoe Lake Road  
Collinsville, IL 62234

13.4-0.2 = 13.2°  
14.4-0.2 = 14.2°  
15.6-0.2 = 15.4°  
Cooler Temp: 13.2-  
15.4°  
FedEx Cooler

Sampler: Teklab, Inc.

QC Level: 2

Comments: **Please Issue reports and invoices via email only**  
Please analyze for Radium (226, 228, and combined) on standard TAT.  
Receipt summary and EDD requested.  
State of origin: Illinois

Project#: 24030002

Contact: Elizabeth Hurley

Email: ehurley@teklabinc.com

Requested Due Date: Standard TAT

Billing/PO: 35876

Phone: (618) 344-1004 ext. 33

**PLEASE NOTE:**

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately. Changes to analysis/methods must be approved by Teklab, Inc.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined Radium										
	24030002-001	3/12/24 1327	HNO3	Groundwater	✓	✓	✓	18, 23									
	24030002-002	3/13/24 1304	HNO3	Groundwater	✓	✓	✓	54, 27									
	24030002-003	3/13/24 1527	HNO3	Groundwater	✓	✓	✓	23, 27									
	24030002-004	3/14/24 1408	HNO3	Groundwater	✓	✓	✓	43, 47									
	24030002-005	3/14/24 1606	HNO3	Groundwater	✓	✓	✓	38, 38									
	24030002-006	3/13/24 1035	HNO3	Groundwater	✓	✓	✓	43, 31									
	24030002-007	3/14/24 1154	HNO3	Groundwater	✓	✓	✓	18, 38									
	24030002-008	3/14/24 1340	HNO3	Groundwater	✓	✓	✓	27, 25									
	24030002-009	3/14/24 1615	HNO3	Groundwater	✓	✓	✓	23, 23									
	24030002-010	3/14/24 1550	HNO3	Groundwater	✓	✓	✓	18, 31									
	24030002-011	3/12/24 1327	HNO3	Groundwater	✓	✓	✓	50, 34									

*Relinquished By: <i>Ember O'Connell</i>	Date/Time: 3/15/24 1700	Received By: <i>[Signature]</i>	Date/Time: 3/18/24, 1000



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: http://www.settek.com

# Sample Log-In Check List

Client Name: TEK-IL-62234-A      Work Order Number: 24031336      RcptNo: 1

Logged by:	Tegan A. Richards	3/18/2024 10:00:00 AM	<i>Tegan Richards</i>
Completed By:	Tegan A. Richards	3/19/2024 3:21:47 PM	<i>Tegan Richards</i>
Reviewed By:	Jennifer Woolf	3/19/2024 5:47:56 PM	<i>Jennifer Woolf</i>

### Chain of Custody

1. Is Chain of Custody complete?      Yes       No       Not Present
2. How was the sample delivered?      FedEx

### Log In

3. Coolers are present?      Yes       No       NA
4. Shipping container/cooler in good condition?      Yes       No
- Custody seals intact on shipping container/cooler?      Yes       No       Not Present
- No.      Seal Date:      Signed By:
5. Was an attempt made to cool the samples?      Yes       No       NA
6. Were all samples received at a temperature of >0° C to 6.0°C      Yes       No       NA
- Not required
7. Sample(s) in proper container(s)?      Yes       No
8. Sufficient sample volume for indicated test(s)?      Yes       No
9. Are samples (except VOA and ONG) properly preserved?      Yes       No
10. Was preservative added to bottles?      Yes       No       NA
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm?      Yes       No       No VOA Vials
12. Were any sample containers received broken?      Yes       No
13. Does paperwork match bottle labels?      Yes       No
- (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody?      Yes       No
15. Is it clear what analyses were requested?      Yes       No
16. Were all holding times able to be met?      Yes       No
- (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	13.2	Good	Not Present			



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## Sample Log-In Check List

Client Name: TEK-IL-62234-A

Work Order Number: 24031336

RcptNo: 1

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	14.2	Good	Not Present			
3	15.4	Good	Not Present			



June 25, 2024

Jason McLaurin  
Southern Illinois Power Cooperation  
11543 Lake of Egypt Road  
Marion, IL 62959  
TEL: (618) 964-1448  
FAX:



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Groundwater Monitoring

**WorkOrder:** 24051567

Dear Jason McLaurin:

TEKLAB, INC received 11 samples on 6/4/2024 3:45:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley  
Director of Customer Service  
(618)344-1004 ex 33  
[ehurley@teklabinc.com](mailto:ehurley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

---

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

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**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
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Laboratory Results	7
Quality Control Results	27
Receiving Check List	40
Chain of Custody	Appended



**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### Abbr Definition

- \* Analytes on report marked with an asterisk are not NELAP accredited
- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
- DNI Did not ignite
- DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- NC Data is not acceptable for compliance purposes
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
- TNTC Too numerous to count ( > 200 CFU )

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Cooler Receipt Temp:** 16.7 °C

An employee of Teklab, Inc. collected the sample(s).

Ra226/228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results and QC.

**Locations**

**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425

**Phone** (618) 344-1004

**Fax** (618) 344-1005

**Email** jhriley@teklabinc.com

**Springfield**

**Address** 3920 Pintail Dr  
Springfield, IL 62711-9415

**Phone** (217) 698-1004

**Fax** (217) 698-1005

**Email** KKlostermann@teklabinc.com

**Kansas City**

**Address** 8421 Nieman Road  
Lenexa, KS 66214

**Phone** (913) 541-1998

**Fax** (913) 541-1998

**Email** jhriley@teklabinc.com

**Collinsville Air**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425

**Phone** (618) 344-1004

**Fax** (618) 344-1005

**Email** EHurley@teklabinc.com

**Chicago**

**Address** 1319 Butterfield Rd.  
Downers Grove, IL 60515

**Phone** (630) 324-6855

**Fax**

**Email** arenner@teklabinc.com



## Accreditations

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-001

Client Sample ID: EBG

Matrix: GROUNDWATER

Collection Date: 06/03/2024 11:41

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		8.48	ft	1	06/03/2024 11:41	R348487
Elevation of groundwater surface	*	0	0		516.39	ft	1	06/03/2024 11:41	R348487
Measuring Point Elevation	*	0	0		524.87	ft	1	06/03/2024 11:41	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.10	gal	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		6.4	NTU	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		102	mV	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.4427	mS/cm	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		26.6	°C	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		3.97	mg/L	1	06/03/2024 11:41	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.59		1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		320	mg/L	1	06/05/2024 10:04	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		18	mg/L	1	06/05/2024 21:42	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50	S	90	mg/L	5	06/05/2024 22:08	R348343
<i>Matrix spike did not recover within control limits. Results verified by dilution.</i>									
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.44	mg/L	1	06/05/2024 15:39	R348326
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0499	mg/L	1	06/06/2024 18:15	223879
Boron	NELAP	0.0090	0.020	J	0.011	mg/L	1	06/06/2024 18:15	223879
Calcium	NELAP	0.0640	0.100		13.8	mg/L	1	06/06/2024 18:15	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 10:04	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 11:49	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 11:49	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 11:49	223879
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	06/07/2024 11:49	223879
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	06/07/2024 11:49	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 11:49	223879
Lithium	*	0.0015	0.0030		0.0203	mg/L	5	06/07/2024 11:49	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0013	mg/L	5	06/07/2024 11:49	223879
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	06/07/2024 11:49	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 11:49	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/11/2024 16:49	224131



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-001

**Client Sample ID:** EBG

**Matrix:** GROUNDWATER

**Collection Date:** 06/03/2024 11:41

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300
Radium-228	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24051567-002  
 Matrix: GROUNDWATER

Work Order: 24051567  
 Report Date: 25-Jun-24

Client Sample ID: EP-1

Collection Date: 06/03/2024 13:34

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		4.52	ft	1	06/03/2024 13:34	R348487
Elevation of groundwater surface	*	0	0		515.20	ft	1	06/03/2024 13:34	R348487
Measuring Point Elevation	*	0	0		519.72	ft	1	06/03/2024 13:34	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.50	gal	1	06/03/2024 13:34	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		5.4	NTU	1	06/03/2024 13:34	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		149	mV	1	06/03/2024 13:34	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.1805	mS/cm	1	06/03/2024 13:34	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.9	°C	1	06/03/2024 13:34	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.62	mg/L	1	06/03/2024 13:34	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.17		1	06/03/2024 13:34	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		2480	mg/L	1	06/05/2024 10:05	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		49	mg/L	1	06/05/2024 22:20	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1540	mg/L	50	06/05/2024 22:24	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.20	mg/L	1	06/07/2024 10:42	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0169	mg/L	1	06/06/2024 18:25	223879
Boron	NELAP	0.0090	0.0200		1.19	mg/L	1	06/06/2024 18:25	223879
Calcium	NELAP	0.0640	0.100		554	mg/L	1	06/06/2024 18:25	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 10:09	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 11:55	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 11:55	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 11:55	223879
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	06/07/2024 11:55	223879
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	06/07/2024 11:55	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 11:55	223879
Lithium	*	0.0015	0.0030		0.0090	mg/L	5	06/07/2024 11:55	223879
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	06/07/2024 11:55	223879
Selenium	NELAP	0.0006	0.0010		0.0033	mg/L	5	06/07/2024 11:55	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 11:55	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/11/2024 16:56	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-002

**Client Sample ID:** EP-1

**Matrix:** GROUNDWATER

**Collection Date:** 06/03/2024 13:34

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		<b>See Attached</b>	pci/L	1	06/19/2024 14:48	R349300



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-003

Client Sample ID: EP-2

Matrix: GROUNDWATER

Collection Date: 06/04/2024 12:02

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		5.18	ft	1	06/04/2024 12:02	R348487
Elevation of groundwater surface	*	0	0		508.61	ft	1	06/04/2024 12:02	R348487
Measuring Point Elevation	*	0	0		513.79	ft	1	06/04/2024 12:02	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		3.20	gal	1	06/04/2024 12:02	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.2	NTU	1	06/04/2024 12:02	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-38	mV	1	06/04/2024 12:02	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.5960	mS/cm	1	06/04/2024 12:02	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		17.8	°C	1	06/04/2024 12:02	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.15	mg/L	1	06/04/2024 12:02	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.71		1	06/04/2024 12:02	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		2260	mg/L	1	06/05/2024 10:05	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	2	20		40	mg/L	5	06/05/2024 22:27	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	307	500		1540	mg/L	50	06/05/2024 22:32	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		1.19	mg/L	1	06/07/2024 10:44	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0189	mg/L	1	06/06/2024 18:26	223879
Boron	NELAP	0.0090	0.0200		0.754	mg/L	1	06/06/2024 18:26	223879
Calcium	NELAP	0.0640	0.100		381	mg/L	1	06/06/2024 18:26	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0005	mg/L	5	06/10/2024 10:38	223879
Arsenic	NELAP	0.0004	0.0010		0.0014	mg/L	5	06/10/2024 10:38	223879
Beryllium	NELAP	0.0002	0.0010		0.0049	mg/L	5	06/07/2024 12:01	223879
Cadmium	*	0.0002	0.0010	J	0.0003	mg/L	5	06/10/2024 10:38	223879
Chromium	NELAP	0.0007	0.0015		0.0025	mg/L	5	06/07/2024 12:01	223879
Cobalt	NELAP	0.0001	0.0010		0.162	mg/L	5	06/07/2024 12:01	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/10/2024 10:38	223879
Lithium	*	0.0015	0.0030		0.0311	mg/L	5	06/07/2024 12:01	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0009	mg/L	5	06/10/2024 10:38	223879
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/10/2024 10:38	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/10/2024 10:38	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/11/2024 16:58	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-003

**Client Sample ID:** EP-2

**Matrix:** GROUNDWATER

**Collection Date:** 06/04/2024 12:02

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24051567-004  
 Matrix: GROUNDWATER

Work Order: 24051567  
 Report Date: 25-Jun-24

Client Sample ID: EP-3

Collection Date: 06/04/2024 12:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		15.90	ft	1	06/04/2024 12:50	R348487
Elevation of groundwater surface	*	0	0		503.05	ft	1	06/04/2024 12:50	R348487
Measuring Point Elevation	*	0	0		518.95	ft	1	06/04/2024 12:50	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.80	gal	1	06/04/2024 12:50	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.6	NTU	1	06/04/2024 12:50	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-16	mV	1	06/04/2024 12:50	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1.7836	mS/cm	1	06/04/2024 12:50	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		21.1	°C	1	06/04/2024 12:50	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.23	mg/L	1	06/04/2024 12:50	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.17		1	06/04/2024 12:50	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		1170	mg/L	1	06/05/2024 10:05	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	10	80		231	mg/L	20	06/06/2024 14:41	R348417
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	123	200		280	mg/L	20	06/06/2024 14:41	R348411
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.35	mg/L	1	06/07/2024 10:46	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0603	mg/L	1	06/06/2024 18:28	223879
Boron	NELAP	0.0090	0.0200		0.0437	mg/L	1	06/06/2024 18:28	223879
Calcium	NELAP	0.0640	0.100		67.6	mg/L	1	06/06/2024 18:28	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 10:43	223879
Arsenic	NELAP	0.0004	0.0010		0.0071	mg/L	5	06/07/2024 12:07	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:07	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:07	223879
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	06/07/2024 12:07	223879
Cobalt	NELAP	0.0001	0.0010		0.0835	mg/L	5	06/07/2024 12:07	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:07	223879
Lithium	*	0.0015	0.0030		0.107	mg/L	5	06/07/2024 12:07	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0008	mg/L	5	06/07/2024 12:07	223879
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:07	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 12:07	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/11/2024 17:00	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300



# Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-004

**Client Sample ID:** EP-3

**Matrix:** GROUNDWATER

**Collection Date:** 06/04/2024 12:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	06/19/2024 14:48	R349300





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-005

Client Sample ID: EP-4

Matrix: GROUNDWATER

Collection Date: 06/04/2024 10:13

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		6.30	ft	1	06/04/2024 10:13	R348487
Elevation of groundwater surface	*	0	0		513.44	ft	1	06/04/2024 10:13	R348487
Measuring Point Elevation	*	0	0		519.74	ft	1	06/04/2024 10:13	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.30	gal	1	06/04/2024 10:13	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.8	NTU	1	06/04/2024 10:13	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-46	mV	1	06/04/2024 10:13	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.2058	mS/cm	1	06/04/2024 10:13	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		19.8	°C	1	06/04/2024 10:13	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.58	mg/L	1	06/04/2024 10:13	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.99		1	06/04/2024 10:13	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		1750	mg/L	2.5	06/05/2024 10:22	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	10	80		459	mg/L	20	06/05/2024 22:57	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	123	200		517	mg/L	20	06/05/2024 22:56	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.18	mg/L	1	06/07/2024 10:48	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0451	mg/L	1	06/06/2024 18:30	223879
Boron	NELAP	0.0090	0.0200		10.2	mg/L	1	06/06/2024 18:30	223879
Calcium	NELAP	0.0640	0.100		208	mg/L	1	06/06/2024 18:30	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 10:49	223879
Arsenic	NELAP	0.0004	0.0010		0.0412	mg/L	5	06/07/2024 12:14	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:14	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:14	223879
Chromium	NELAP	0.0007	0.0015		0.0046	mg/L	5	06/07/2024 12:14	223879
Cobalt	NELAP	0.0001	0.0010		0.0833	mg/L	5	06/07/2024 12:14	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:14	223879
Lithium	*	0.0015	0.0030		0.0033	mg/L	5	06/07/2024 12:14	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0006	mg/L	5	06/07/2024 12:14	223879
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:14	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 12:14	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/11/2024 17:02	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-005

**Client Sample ID:** EP-4

**Matrix:** GROUNDWATER

**Collection Date:** 06/04/2024 10:13

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-006

Client Sample ID: EP-5

Matrix: GROUNDWATER

Collection Date: 06/03/2024 12:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		11.61	ft	1	06/03/2024 12:40	R348487
Elevation of groundwater surface	*	0	0		515.98	ft	1	06/03/2024 12:40	R348487
Measuring Point Elevation	*	0	0		527.59	ft	1	06/03/2024 12:40	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.10	gal	1	06/03/2024 12:40	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.7	NTU	1	06/03/2024 12:40	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		118	mV	1	06/03/2024 12:40	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.3460	mS/cm	1	06/03/2024 12:40	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		17.9	°C	1	06/03/2024 12:40	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		7.64	mg/L	1	06/03/2024 12:40	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.48		1	06/03/2024 12:40	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		252	mg/L	1	06/05/2024 10:34	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4	J	3	mg/L	1	06/05/2024 22:59	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		125	mg/L	5	06/05/2024 23:04	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.35	mg/L	1	06/07/2024 10:50	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0551	mg/L	1	06/06/2024 18:31	223879
Boron	NELAP	0.0090	0.020	J	0.013	mg/L	1	06/06/2024 18:31	223879
Calcium	NELAP	0.0640	0.100	S	17.8	mg/L	1	06/06/2024 18:31	223879
<i>Matrix spike control limits are not applicable due to high sample/spike ratio.</i>									
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 11:16	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 12:26	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:26	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:26	223879
Chromium	NELAP	0.0007	0.0015	J	0.0011	mg/L	5	06/07/2024 12:26	223879
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	06/07/2024 12:26	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:26	223879
Lithium	*	0.0015	0.0030		0.0031	mg/L	5	06/07/2024 12:26	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0009	mg/L	5	06/07/2024 12:26	223879
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	06/07/2024 12:26	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 12:26	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/11/2024 17:05	224131



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-006

**Client Sample ID:** EP-5

**Matrix:** GROUNDWATER

**Collection Date:** 06/03/2024 12:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-007

Client Sample ID: EP-6

Matrix: GROUNDWATER

Collection Date: 06/04/2024 13:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		2.12	ft	1	06/04/2024 13:15	R348487
Elevation of groundwater surface	*	0	0		502.99	ft	1	06/04/2024 13:15	R348487
Measuring Point Elevation	*	0	0		505.11	ft	1	06/04/2024 13:15	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.90	gal	1	06/04/2024 13:15	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.9	NTU	1	06/04/2024 13:15	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		117	mV	1	06/04/2024 13:15	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.3065	mS/cm	1	06/04/2024 13:15	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.7	°C	1	06/04/2024 13:15	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.25	mg/L	1	06/04/2024 13:15	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		4.93		1	06/04/2024 13:15	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20	H	276	mg/L	1	06/13/2024 9:58	R348805
<i>Sample required re-analysis out of hold time.</i>									
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		20	mg/L	1	06/05/2024 23:07	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		78	mg/L	5	06/05/2024 23:12	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10	J	0.06	mg/L	1	06/07/2024 11:07	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0368	mg/L	1	06/06/2024 18:36	223879
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	06/06/2024 18:36	223879
Calcium	NELAP	0.0640	0.100		1.48	mg/L	1	06/06/2024 18:36	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 10:54	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 12:20	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:20	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 12:20	223879
Chromium	NELAP	0.0007	0.0015		0.0016	mg/L	5	06/07/2024 12:20	223879
Cobalt	NELAP	0.0001	0.0010		0.0013	mg/L	5	06/07/2024 12:20	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:20	223879
Lithium	*	0.0015	0.0030		0.0104	mg/L	5	06/07/2024 12:20	223879
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	06/07/2024 12:20	223879
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 12:20	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 12:20	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/12/2024 9:09	224131



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-007

Client Sample ID: EP-6

Matrix: GROUNDWATER

Collection Date: 06/04/2024 13:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24051567-008  
 Matrix: GROUNDWATER

Work Order: 24051567  
 Report Date: 25-Jun-24

Client Sample ID: EP-7  
 Collection Date: 06/04/2024 12:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		13.90	ft	1	06/04/2024 12:20	R348487
Elevation of groundwater surface	*	0	0		501.54	ft	1	06/04/2024 12:20	R348487
Measuring Point Elevation	*	0	0		515.44	ft	1	06/04/2024 12:20	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		4.50	gal	1	06/04/2024 12:20	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		13	NTU	1	06/04/2024 12:20	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-18	mV	1	06/04/2024 12:20	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1.5125	mS/cm	1	06/04/2024 12:20	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.3	°C	1	06/04/2024 12:20	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.14	mg/L	1	06/04/2024 12:20	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.86		1	06/04/2024 12:20	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		482	mg/L	1	06/05/2024 10:40	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	5	40		242	mg/L	10	06/05/2024 23:15	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	61	100		413	mg/L	10	06/05/2024 23:15	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.25	mg/L	1	06/07/2024 11:10	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0328	mg/L	1	06/06/2024 18:38	223879
Boron	NELAP	0.0090	0.0200		0.785	mg/L	1	06/06/2024 18:38	223879
Calcium	NELAP	0.0640	0.100		142	mg/L	1	06/06/2024 18:38	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 11:00	223879
Arsenic	NELAP	0.0004	0.0010		0.0072	mg/L	5	06/07/2024 13:28	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:28	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:28	223879
Chromium	NELAP	0.0007	0.0015		0.0035	mg/L	5	06/07/2024 13:28	223879
Cobalt	NELAP	0.0001	0.0010		0.130	mg/L	5	06/07/2024 13:28	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 13:28	223879
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	06/07/2024 13:28	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0011	mg/L	5	06/10/2024 11:00	223879
Selenium	NELAP	0.0006	0.0010	J	0.0006	mg/L	5	06/10/2024 11:00	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 13:28	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/12/2024 9:12	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-008

**Client Sample ID:** EP-7

**Matrix:** GROUNDWATER

**Collection Date:** 06/04/2024 12:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-009

Client Sample ID: Equipment Blank

Matrix: AQUEOUS

Collection Date: 06/04/2024 13:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	06/05/2024 10:41	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		< 4	mg/L	1	06/05/2024 23:21	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	6	10		< 10	mg/L	1	06/05/2024 23:20	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	06/07/2024 11:12	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	06/07/2024 10:59	223879
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	06/07/2024 10:59	223879
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	06/07/2024 10:59	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 11:05	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 13:35	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:35	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:35	223879
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	06/07/2024 13:35	223879
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	06/07/2024 13:35	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 13:35	223879
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	06/07/2024 13:35	223879
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	06/07/2024 13:35	223879
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 13:35	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 13:35	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/12/2024 9:14	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24051567

Client Project: Groundwater Monitoring

Report Date: 25-Jun-24

Lab ID: 24051567-010

Client Sample ID: Field Blank

Matrix: AQUEOUS

Collection Date: 06/04/2024 12:58

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	06/05/2024 10:41	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		< 4	mg/L	1	06/05/2024 23:23	R348357
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	6	10		< 10	mg/L	1	06/05/2024 23:23	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		< 0.10	mg/L	1	06/07/2024 11:14	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	06/07/2024 11:00	223879
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	06/07/2024 11:00	223879
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	06/07/2024 11:00	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/10/2024 11:11	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 13:41	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:41	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:41	223879
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	06/07/2024 13:41	223879
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	06/07/2024 13:41	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 13:41	223879
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	06/07/2024 13:41	223879
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	06/07/2024 13:41	223879
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 13:41	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 13:41	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	06/12/2024 9:16	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24051567-011  
 Matrix: GROUNDWATER

Work Order: 24051567  
 Report Date: 25-Jun-24

Client Sample ID: Field Duplicate

Collection Date: 06/03/2024 11:41

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		8.48	ft	1	06/03/2024 11:41	R348487
Elevation of groundwater surface	*	0	0		516.39	ft	1	06/03/2024 11:41	R348487
Measuring Point Elevation	*	0	0		524.87	ft	1	06/03/2024 11:41	R348487
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		2.10	gal	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		6.4	NTU	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		102	mV	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.4427	mS/cm	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		26.6	°C	1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		3.97	mg/L	1	06/03/2024 11:41	R348487
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.59		1	06/03/2024 11:41	R348487
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		332	mg/L	1	06/05/2024 10:41	R348379
<b>STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011</b>									
Chloride	NELAP	1	4		18	mg/L	1	06/06/2024 14:43	R348417
<b>SW-846 9036 (TOTAL)</b>									
Sulfate	NELAP	31	50		88	mg/L	5	06/05/2024 23:26	R348343
<b>SW-846 9214 (TOTAL)</b>									
Fluoride	NELAP	0.04	0.10		0.50	mg/L	1	06/07/2024 11:17	R348452
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0531	mg/L	1	06/07/2024 11:30	223879
Boron	NELAP	0.0090	0.020	J	0.013	mg/L	1	06/07/2024 11:30	223879
Calcium	NELAP	0.0350	0.100		13.8	mg/L	1	06/07/2024 11:30	223879
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0034	mg/L	5	06/10/2024 12:24	223879
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	06/07/2024 13:47	223879
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:47	223879
Cadmium	*	0.0002	0.0010		< 0.0010	mg/L	5	06/07/2024 13:47	223879
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	06/07/2024 13:47	223879
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	06/07/2024 13:47	223879
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	06/07/2024 13:47	223879
Lithium	*	0.0015	0.0030		0.0191	mg/L	5	06/07/2024 13:47	223879
Molybdenum	NELAP	0.0006	0.0015	J	0.0010	mg/L	5	06/07/2024 13:47	223879
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	06/07/2024 13:47	223879
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	06/07/2024 13:47	223879
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020	J	0.00014	mg/L	1	06/12/2024 9:26	224131
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300



## Laboratory Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Lab ID:** 24051567-011

**Client Sample ID:** Field Duplicate

**Matrix:** GROUNDWATER

**Collection Date:** 06/03/2024 11:41

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-228	*	0	0		See Attached	pci/L	1	06/20/2024 14:41	R349300





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### STANDARD METHODS 2510 B FIELD

Batch R348487		SampType: LCS		Units mS/cm							
SampID: LCS-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		<b>1.4130</b>	1.412	0	100.1	90	110	06/04/2024	
Spec. Conductance, Field	*	0		<b>1.4100</b>	1.412	0	99.9	90	110	06/03/2024	

Batch R348487		SampType: LCS		Units mS/cm							
SampID: LCS-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0		<b>1.4120</b>	1.412	0	100.0	90	110	06/04/2024	

### SW-846 9040B FIELD

Batch R348487		SampType: LCS		Units							
SampID: LCS-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		<b>6.99</b>	7.000	0	99.9	98.57	101.4	06/03/2024	
pH	*	1.00		<b>7.05</b>	7.000	0	100.7	98.57	101.4	06/04/2024	

Batch R348487		SampType: LCS		Units							
SampID: LCS-2											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		<b>7.00</b>	7.000	0	100.0	98.57	101.4	06/04/2024	

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R348379		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	06/05/2024	
Total Dissolved Solids		20		<b>&lt; 20</b>	16.00	0	0	-100	100	06/05/2024	

Batch R348379		SampType: LCS		Units mg/L							
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		<b>952</b>	1000	0	95.2	90	110	06/05/2024	
Total Dissolved Solids		20		<b>902</b>	1000	0	90.2	90	110	06/05/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R348379		SampType: DUP		Units mg/L			RPD Limit 10			Date Analyzed
SampID: 24050124-004ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Total Dissolved Solids		50	H	715				785.0	9.33	06/05/2024

Batch R348379		SampType: DUP		Units mg/L			RPD Limit 10			Date Analyzed
SampID: 24050124-017ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Total Dissolved Solids		50	H	580				570.0	1.74	06/05/2024

Batch R348379		SampType: DUP		Units mg/L			RPD Limit 10			Date Analyzed
SampID: 24052388-004HDUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Total Dissolved Solids		50		1710				1615	5.71	06/05/2024

Batch R348379		SampType: DUP		Units mg/L			RPD Limit 10			Date Analyzed
SampID: 24060011-019ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Total Dissolved Solids		100		9420				9240	1.93	06/05/2024

Batch R348379		SampType: DUP		Units mg/L			RPD Limit 10			Date Analyzed
SampID: 24060130-002ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Total Dissolved Solids		20		1920				1892	1.36	06/05/2024

Batch R348379		SampType: DUP		Units mg/L			RPD Limit 10			Date Analyzed
SampID: 24060133-002ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	
Total Dissolved Solids		20		3910				3566	9.15	06/05/2024

Batch R348805		SampType: MBLK		Units mg/L			RPD Limit 10			Date Analyzed
SampID: MBLK										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	06/13/2024

Batch R348805		SampType: LCS		Units mg/L			RPD Limit 10			Date Analyzed
SampID: LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
Total Dissolved Solids		20		976	1000	0	97.6	90	110	06/13/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R348805		SampType: DUP		Units mg/L				RPD Limit 10			Date Analyzed
SampID: 24051567-007ADUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Total Dissolved Solids		20	H	272				276.0	1.46	06/13/2024	

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R348357		SampType: MBLK		Units mg/L				Low Limit		High Limit	Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	06/05/2024	

### Batch R348357 SampType: LCS Units mg/L

SampID: ICV/LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		20	20.00	0	100.6	90	110	06/05/2024

### Batch R348357 SampType: MS Units mg/L

SampID: 24051567-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		37	20.00	18.44	91.9	85	115	06/05/2024

### Batch R348357 SampType: MSD Units mg/L

SampID: 24051567-001AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		4		37	20.00	18.44	92.1	36.82	0.11	06/05/2024

### Batch R348357 SampType: MS Units mg/L

SampID: 24051913-001CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		32	20.00	12.73	96.4	85	115	06/05/2024

### Batch R348357 SampType: MSD Units mg/L

SampID: 24051913-001CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		4		31	20.00	12.73	93.0	32.00	2.15	06/05/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R348357		SampType: MS		Units mg/L							Date Analyzed
SampID: 24060049-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>28</b>	20.00	8.520	97.4	85	115	06/05/2024	

Batch R348357		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24060049-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>28</b>	20.00	8.520	95.7	28.01	1.29	06/05/2024		

Batch R348357		SampType: MS		Units mg/L							Date Analyzed
SampID: 24060089-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>47</b>	20.00	29.18	88.6	85	115	06/05/2024	

Batch R348357		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24060089-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		4		<b>47</b>	20.00	29.18	89.6	46.90	0.43	06/05/2024		

Batch R348357		SampType: MS		Units mg/L							Date Analyzed
SampID: 24060133-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		200		<b>1840</b>	1000	923.5	91.3	85	115	06/05/2024	

Batch R348357		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24060133-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Chloride		200		<b>1890</b>	1000	923.5	96.7	1836	2.90	06/05/2024		

Batch R348417		SampType: MBLK		Units mg/L							Date Analyzed
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	06/06/2024	

Batch R348417		SampType: LCS		Units mg/L							Date Analyzed
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride		4		<b>20</b>	20.00	0	100.6	90	110	06/06/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

**Batch R348417**    **SampType: MS**                      Units **mg/L**

SampID: 24060353-003BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		40	E	<b>501</b>	200.0	328.1	86.3	85	115	06/06/2024

**Batch R348417**    **SampType: MSD**                      Units **mg/L**

RPD Limit **15**

SampID: 24060353-003BMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		40	E	<b>510</b>	200.0	328.1	91.1	500.7	1.90	06/06/2024

**Batch R348417**    **SampType: MS**                      Units **mg/L**

SampID: 24060420-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		20	E	<b>319</b>	100.0	223.5	95.8	85	115	06/06/2024

**Batch R348417**    **SampType: MSD**                      Units **mg/L**

RPD Limit **15**

SampID: 24060420-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		20	E	<b>331</b>	100.0	223.5	107.5	319.3	3.60	06/06/2024

### SW-846 9036 (TOTAL)

**Batch R348343**    **SampType: MBLK**                      Units **mg/L**

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	06/05/2024

**Batch R348343**    **SampType: LCS**                      Units **mg/L**

SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		<b>19</b>	20.00	0	94.7	90	110	06/05/2024

**Batch R348343**    **SampType: MS**                      Units **mg/L**

SampID: 24051567-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		50	S	<b>205</b>	100.0	89.78	115.2	85	115	06/05/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**SW-846 9036 (TOTAL)**

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24051567-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		50	S	207	100.0	89.78	117.1	205.0	0.94	06/05/2024	

Batch R348343		SampType: MS		Units mg/L				RPD Limit 10			
SampID: 24051913-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10	S	48	20.00	35.92	62.3	85	115	06/05/2024	

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24051913-001CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10	S	48	20.00	35.92	60.8	48.38	0.60	06/05/2024	

Batch R348343		SampType: MS		Units mg/L				RPD Limit 10			
SampID: 24052425-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		200		616	400.0	235.9	94.9	85	115	06/05/2024	

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24052425-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		200	S	574	400.0	235.9	84.4	615.6	7.06	06/05/2024	

Batch R348343		SampType: MS		Units mg/L				RPD Limit 10			
SampID: 24060049-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		100		313	200.0	130.3	91.5	90	110	06/05/2024	

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24060049-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		100		329	200.0	130.3	99.2	313.3	4.78	06/05/2024	

Batch R348343		SampType: MS		Units mg/L				RPD Limit 10			
SampID: 24060089-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10	SE	61	20.00	44.12	85.0	90	110	06/05/2024	





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**SW-846 9036 (TOTAL)**

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24060089-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		10	E	<b>62</b>	20.00	44.12	90.4	61.13	1.72	06/05/2024	

Batch R348343		SampType: MS		Units mg/L							
SampID: 24060133-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		500		<b>2400</b>	1000	1477	92.3	90	110	06/05/2024	

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24060133-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		500	E	<b>2520</b>	1000	1477	104.2	2400	4.86	06/05/2024	

Batch R348343		SampType: MS		Units mg/L							
SampID: 24060339-001CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		1000		<b>3660</b>	2000	1781	93.7	90	110	06/06/2024	

Batch R348343		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 24060339-001CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		1000		<b>3670</b>	2000	1781	94.6	3655	0.47	06/06/2024	

Batch R348411		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>&lt; 10</b>	6.140	0	0	-100	100	06/06/2024	

Batch R348411		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		<b>19</b>	20.00	0	95.9	90	110	06/06/2024	

Batch R348411		SampType: MS		Units mg/L							
SampID: 24060420-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		50		<b>195</b>	100.0	94.30	100.3	90	110	06/06/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**SW-846 9036 (TOTAL)**

Batch R348411		SampType: MSD		Units mg/L				RPD Limit 10			Date Analyzed
SampID: 24060420-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate		50		<b>200</b>	100.0	94.30	105.4	194.6	2.60	06/06/2024	

**SW-846 9214 (TOTAL)**

Batch R348326		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		< 0.10	0.0500	0	0	-100	100	06/05/2024	

**Batch R348326 SampType: LCS Units mg/L**

SampID: LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.10		<b>0.99</b>	1.000	0	99.4	90	110	06/05/2024

**Batch R348326 SampType: MS Units mg/L**

SampID: 24051567-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.10		<b>2.31</b>	2.000	0.4440	93.1	75	125	06/05/2024

**Batch R348326 SampType: MSD Units mg/L**

SampID: 24051567-001AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Fluoride		0.10		<b>2.46</b>	2.000	0.4440	100.9	2.306	6.54	06/05/2024

**Batch R348326 SampType: MS Units mg/L**

SampID: 24060049-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.10		<b>2.24</b>	2.000	0.3540	94.1	75	125	06/05/2024

**Batch R348326 SampType: MSD Units mg/L**

SampID: 24060049-001AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Fluoride		0.10		<b>2.50</b>	2.000	0.3540	107.6	2.235	11.39	06/05/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**SW-846 9214 (TOTAL)**

Batch R348326		SampType: MS		Units mg/L							Date Analyzed
SampID: 24060133-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>2.28</b>	2.000	0.3530	96.1	75	125	06/05/2024	

Batch R348326		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24060133-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.10		<b>2.28</b>	2.000	0.3530	96.4	2.275	0.22	06/05/2024		

Batch R348452		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>&lt; 0.10</b>	0.0500	0	0	-100	100	06/07/2024	

Batch R348452		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>0.93</b>	1.000	0	92.9	90	110	06/07/2024	

Batch R348452		SampType: MS		Units mg/L							Date Analyzed
SampID: 24051567-006AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>2.51</b>	2.000	0.3510	108.2	75	125	06/07/2024	

Batch R348452		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24051567-006AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.10		<b>2.28</b>	2.000	0.3510	96.5	2.514	9.76	06/07/2024		

Batch R348452		SampType: MS		Units mg/L							Date Analyzed
SampID: 24051567-011AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.10		<b>2.60</b>	2.000	0.4970	105.0	75	125	06/07/2024	

Batch R348452		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24051567-011AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.10		<b>2.62</b>	2.000	0.4970	106.1	2.598	0.81	06/07/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### SW-846 9214 (TOTAL)

Batch R348452		SampType: MS		Units mg/L							Date Analyzed
SampID: 24060485-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		1.00		<b>38.2</b>	20.00	16.63	107.8	75	125	06/07/2024	

Batch R348452		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24060485-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		1.00		<b>38.0</b>	20.00	16.63	106.8	38.18	0.50	06/07/2024		

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 223879		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-223879											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		< <b>0.0025</b>	0.0007	0	0	-100	100	06/06/2024	
Boron		0.0200		< <b>0.0200</b>	0.0090	0	0	-100	100	06/06/2024	
Calcium		0.100		< <b>0.100</b>	0.0350	0	0	-100	100	06/06/2024	

Batch 223879		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-223879											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.02</b>	2.000	0	101.0	85	115	06/06/2024	
Boron		0.0200		<b>0.495</b>	0.5000	0	99.0	85	115	06/06/2024	
Calcium		0.100		<b>2.45</b>	2.500	0	97.9	85	115	06/06/2024	

Batch 223879		SampType: MS		Units mg/L							Date Analyzed
SampID: 24051567-006CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.29</b>	2.000	0.05510	111.7	75	125	06/06/2024	
Boron		0.0200		<b>0.562</b>	0.5000	0.01300	109.7	75	125	06/06/2024	
Calcium		0.100	S	<b>21.6</b>	2.500	17.85	148.4	75	125	06/06/2024	

Batch 223879		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 24051567-006CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Barium		0.0025		<b>2.25</b>	2.000	0.05510	109.7	2.290	1.76	06/06/2024		
Boron		0.0200		<b>0.550</b>	0.5000	0.01300	107.5	0.5617	2.03	06/06/2024		
Calcium		0.100	S	<b>21.1</b>	2.500	17.85	128.8	21.56	2.30	06/06/2024		



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 223879**      **SampType: MBLK**      Units mg/L  
 SampID: MBLK-223879

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< 0.0010	0.0004	0	0	-100	100	06/10/2024
Arsenic		0.0010		< 0.0010	0.0004	0	0	-100	100	06/07/2024
Beryllium		0.0010		< 0.0010	0.0002	0	0	-100	100	06/07/2024
Cadmium	*	0.0010		< 0.0010	0.0001	0	0	-100	100	06/07/2024
Chromium		0.0015		< 0.0015	0.0007	0	0	-100	100	06/07/2024
Cobalt		0.0010		< 0.0010	0.0001	0	0	-100	100	06/07/2024
Lead		0.0010		< 0.0010	0.0006	0	0	-100	100	06/07/2024
Lithium	*	0.0030		< 0.0030	0.0015	0	0	-100	100	06/07/2024
Molybdenum		0.0015		< 0.0015	0.0006	0	0	-100	100	06/07/2024
Selenium		0.0010		< 0.0010	0.0006	0	0	-100	100	06/07/2024
Thallium		0.0020		< 0.0020	0.0010	0	0	-100	100	06/07/2024

**Batch 223879**      **SampType: LCS**      Units mg/L  
 SampID: LCS-223879

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		0.522	0.5000	0	104.3	80	120	06/10/2024
Arsenic		0.0010		0.520	0.5000	0	103.9	80	120	06/07/2024
Beryllium		0.0010		0.0507	0.0500	0	101.4	80	120	06/07/2024
Cadmium	*	0.0010		0.0509	0.0500	0	101.8	80	120	06/07/2024
Chromium		0.0015		0.206	0.2000	0	102.8	80	120	06/07/2024
Cobalt		0.0010		0.475	0.5000	0	95.0	80	120	06/07/2024
Lead		0.0010		0.505	0.5000	0	101.1	80	120	06/07/2024
Lithium	*	0.0030		0.516	0.5000	0	103.2	80	120	06/07/2024
Molybdenum		0.0015		0.466	0.5000	0	93.2	80	120	06/07/2024
Selenium		0.0010		0.547	0.5000	0	109.3	80	120	06/07/2024
Thallium		0.0020		0.237	0.2500	0	94.8	80	120	06/07/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 223879**      **SampType: MS**      Units mg/L

SampID: 24051567-006CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.529</b>	0.5000	0	105.7	75	125	06/10/2024
Arsenic		0.0010		<b>0.497</b>	0.5000	0	99.3	75	125	06/07/2024
Beryllium		0.0010		<b>0.0477</b>	0.0500	0	95.4	75	125	06/07/2024
Cadmium	*	0.0010		<b>0.0503</b>	0.0500	0	100.7	75	125	06/07/2024
Chromium		0.0015		<b>0.198</b>	0.2000	0.001145	98.5	75	125	06/07/2024
Cobalt		0.0010		<b>0.451</b>	0.5000	0	90.2	75	125	06/07/2024
Lead		0.0010		<b>0.497</b>	0.5000	0	99.4	75	125	06/07/2024
Lithium	*	0.0030		<b>0.493</b>	0.5000	0.003070	98.1	75	125	06/07/2024
Molybdenum		0.0015		<b>0.458</b>	0.5000	0.0009067	91.4	75	125	06/07/2024
Selenium		0.0010		<b>0.523</b>	0.5000	0.0007327	104.4	75	125	06/07/2024
Thallium		0.0020		<b>0.230</b>	0.2500	0	91.8	75	125	06/07/2024

**Batch 223879**      **SampType: MSD**      Units mg/L

RPD Limit **20**

SampID: 24051567-006CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Antimony		0.0010		<b>0.515</b>	0.5000	0	103.0	0.5287	2.60	06/10/2024
Arsenic		0.0010		<b>0.500</b>	0.5000	0	100.0	0.4967	0.63	06/07/2024
Beryllium		0.0010		<b>0.0501</b>	0.0500	0	100.1	0.04768	4.87	06/07/2024
Cadmium	*	0.0010		<b>0.0515</b>	0.0500	0	102.9	0.05035	2.21	06/07/2024
Chromium		0.0015		<b>0.200</b>	0.2000	0.001145	99.6	0.1982	1.06	06/07/2024
Cobalt		0.0010		<b>0.455</b>	0.5000	0	91.1	0.4508	1.04	06/07/2024
Lead		0.0010		<b>0.505</b>	0.5000	0	101.0	0.4972	1.55	06/07/2024
Lithium	*	0.0030		<b>0.502</b>	0.5000	0.003070	99.7	0.4935	1.62	06/07/2024
Molybdenum		0.0015		<b>0.467</b>	0.5000	0.0009067	93.2	0.4578	1.97	06/07/2024
Selenium		0.0010		<b>0.531</b>	0.5000	0.0007327	106.0	0.5226	1.56	06/07/2024
Thallium		0.0020		<b>0.239</b>	0.2500	0	95.5	0.2295	3.96	06/07/2024

### SW-846 7470A (TOTAL)

**Batch 224131**      **SampType: MBLK**      Units mg/L

SampID: MBLK-224131

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		<b>&lt; 0.00020</b>	0.0001	0	0	-100	100	06/11/2024





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**SW-846 7470A (TOTAL)**

Batch 224131		SampType: LCS		Units mg/L						
SampID: LCS-224131										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		<b>0.00490</b>	0.0050	0	98.1	85	115	06/11/2024

Batch 224131		SampType: MS		Units mg/L						
SampID: 24051567-001CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		<b>0.00481</b>	0.0050	0	96.3	75	125	06/11/2024

Batch 224131		SampType: MSD		Units mg/L							RPD Limit 15
SampID: 24051567-001CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		<b>0.00475</b>	0.0050	0	95.0	0.004814	1.30	06/11/2024	

Batch 224131		SampType: MS		Units mg/L						
SampID: 24060160-025AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.00020		<b>0.00561</b>	0.0050	0	112.1	75	125	06/11/2024

Batch 224131		SampType: MSD		Units mg/L							RPD Limit 15
SampID: 24060160-025AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		<b>0.00557</b>	0.0050	0	111.4	0.005606	0.64	06/11/2024	



# Receiving Check List

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24051567

**Client Project:** Groundwater Monitoring

**Report Date:** 25-Jun-24

**Carrier:** Payton Yoch

**Received By:** LM

**Completed by:**

**Reviewed by:**

**On:**

**On:**

04-Jun-24

04-Jun-24

Amber Dilallo

Elizabeth A. Hurley

**Pages to follow:** Chain of custody

Extra pages included

- |   |   |   |                                      |                                  |
|---|---|---|--------------------------------------|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             | Not Present <input type="checkbox"/> | Temp °C <b>16.7</b>              |
| Type of thermal preservation?                           | None <input type="checkbox"/>             | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/>    | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |
| Reported field parameters measured:                     | Field <input checked="" type="checkbox"/> | Lab <input type="checkbox"/>            | NA <input type="checkbox"/>          |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/>   | No <input type="checkbox"/>             |                                      |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |                              |  |   |
|---|------------------------------|--|---|
| Water – at least one vial per sample has zero headspace?  | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No VOA vials <input checked="" type="checkbox"/>      |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/>                           |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/>                |

**Any No responses must be detailed below or on the COC.**

Samples were received on 6/3/24 at 1625 on ice [16.7C - LTG5]. pH strip #96651. - LH/amberdilallo - 6/4/2024 8:42:22 AM

Samples were received on 6/4/24 at 1545 on ice [3.3C - LTG5]. pH strip #96651. Additional Nitric Acid (97737) was needed in EP-3 and EP-4 upon arrival at the laboratory. - NR/amberdilallo - 6/4/2024 4:11:18 PM

# CHAIN OF CUSTODY

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

**Client:** Southern Illinois Power Cooperation  
**Address:** 11543 Lake of Egypt Road  
**City / State / Zip:** Marion, IL 62959  
**Contact:** Jason McLaurin **Phone:** (618) 964-1448  
**E-Mail:** jmclaurin@sipower.org **Fax:** \_\_\_\_\_

**Samples on:**  ICE  BLUE ICE  NO ICE 23 3°C LTG# 3  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:** pH 9.651 116.7° #5  
LH 6/4/24

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Ti  
 Field Parameters = Elevations, Purge Volume, pH, Conductivity (reported in mS/cm), Temperature, DO, ORP, and Turbidity

**Project Name/Number:** Groundwater Monitoring  
**Sample Collector's Name:** Justin Colp

**Results Requested:**  Standard  1-2 Day (100% Surcharge)  
 Other  3 Day (50% Surcharge)  
**Billing Instructions:** \_\_\_\_\_  
**# and Type of Containers:**

Lab Use Only	Sample Identification	Date/Time Sampled	UNP		HNO3																
			1	3	1	3															
24051567-001	EBG	6-3-24 / 1141	1	3																	
-002	EP-1	6-3-24 / 1334	1	3																	
-003	EP-2		1	3																	
-004	EP-3		1	3																	
-005	EP-4		1	3																	
-006	EP-5	6-3-24 / 1240	1	3																	
-007	EP-6		1	3																	
-008	EP-7		1	3																	
-009	Equipment Blank		1	3																	
-010	Field Blank		1	3																	

MATRIX	INDICATE ANALYSIS REQUESTED										
	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS		
Aqueous											
Groundwater	X	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X		
	X		X	X	X	X	X	X	X		
	X		X	X	X	X	X	X	X		

Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i>	6-3-24 / 1625	<i>[Signature]</i>	6/3/24 / 1625

# CHAIN OF CUSTODY

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

**Client:** Southern Illinois Power Cooperation  
**Address:** 11543 Lake of Egypt Road  
**City / State / Zip:** Marion, IL 62959  
**Contact:** Jason McLaurin **Phone:** (618) 964-1443  
**E-Mail:** jmclaurin@sipower.org **Fax:**

**Samples on:**  ICE  BLUE ICE  NO ICE \_\_\_\_\_ °C LTG# \_\_\_\_\_  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:**

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl  
 Field Parameters = Elevations, Purge Volume, pH, Conductivity (reported in mS/cm), Temperature, DO, ORP, and Turbidity

**Project Name/Number:** Groundwater Monitoring  
**Sample Collector's Name:** Justin Galp

**Results Requested:**  Standard  1-2 Day (100% Surcharge)  Other \_\_\_\_\_  3 Day (50% Surcharge)  
**Billing Instructions:** \_\_\_\_\_  
**# and Type of Containers:**

UNP	HNO3						
1	3						

Lab Use Only	Sample Identification	Date/Time Sampled	UNP	HNO3													
24051567-011	Field Duplicate	6-3-24 / 1141	1	3													

MATRIX	INDICATE ANALYSIS REQUESTED																
	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS								
Aqueous																	
Groundwater	X	X	X	X	X	X	X	X	X								

Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i>	6-3-24 1 1625	<i>[Signature]</i>	6/3/24 1625

# CHAIN OF CUSTODY

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

<b>Client:</b>	Southern Illinois Power Cooperation		
<b>Address:</b>	11543 Lake of Egypt Road		
<b>City / State / Zip</b>	Marion, IL 62959		
<b>Contact:</b>	Jason McLaurin	<b>Phone:</b>	(618) 964-1448
<b>E-Mail:</b>	jmcclaurin@sipower.org	<b>Fax:</b>	

**Samples on:**  ICE  BLUE ICE  NO ICE 3.3 °C LTG# 5

**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**

**Lab Notes:**  
*Added HNO<sub>3</sub> (97737) to sample EP3 + EP4 m/6/4*

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No

Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No

Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section.  Yes  No

**Client Comments**

ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Tl

Field Parameters = Elevations, Purge Volume, pH, Conductivity (reported in mS/cm), Temperature, DO, ORP, and Turbidity

<b>Project Name/Number</b>	<b>Sample Collector's Name</b>
Groundwater Monitoring	Justin Colp

<b>Results Requested</b>	<b>Billing Instructions</b>	<b># and Type of Containers</b>																				
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 1-2 Day (100% Surcharge)		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">UNP</td> <td style="width: 5%;">HNO3</td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	UNP	HNO3																		
UNP	HNO3																					
<input type="checkbox"/> Other <input type="checkbox"/> 3 Day (50% Surcharge)																						

Lab Use Only	Sample Identification	Date/Time Sampled	UNP	HNO3									
24051567-001	EBG		1	3									
-002	EP-1		1	3									
-003	EP-2	6-4-24/1202	1	3									
-004	EP-3	6-4-24/1250	1	3									
-005	EP-4	6-4-24/1013	1	3									
-006	EP-5		1	3									
-007	EP-6	6-4-24/1315	1	3									
-008	EP-7	6-4-24/1220	1	3									
-009	Equipment Blank	6-4-24/1305	1	3									
-010	Field Blank	6-4-24/1258	1	3									

MATRIX		INDICATE ANALYSIS REQUESTED												
Groundwater	Aqueous	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				
X		X	X	X	X	X	X	X	X	X				

Relinquished By	Date/Time	Received By	Date/Time
J. Colp	6-4-24 / 1545	Trish Reed	6/4/24 1545



Summit Environmental Technologies, Inc.  
3310 Win St.  
Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

June 24, 2024

Elizabeth Hurley  
TEKLAB Inc,  
5445 Horseshoe lake Road  
Collinsville, IL 62234  
TEL:  
FAX:  
RE: 24051567

Order No.: 24060584

Dear Elizabeth Hurley:

Summit Environmental Technologies, Inc. received 11 sample(s) on 6/7/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf  
Project Manager  
3310 Win St.  
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C





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## Case Narrative

WO#: 24060584  
Date: 6/24/2024

---

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567

---

### WorkOrder Narrative:

24060584: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

---

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

### Qualifiers

<b>U</b>	The compound was analyzed for but was not detected above the MDL.
<b>J</b>	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
<b>H</b>	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
<b>D</b>	The result is reported from a dilution.
<b>E</b>	The result exceeded the linear range of the calibration or is estimated due to interference.
<b>MC</b>	The result is below the Minimum Compound Limit.
<b>*</b>	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
<b>m</b>	Manual integration was used to determine the area response.
<b>d</b>	Manual integration in which peak was deleted
<b>N</b>	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
<b>P</b>	The second column confirmation exceeded 25% difference.
<b>C</b>	The result has been confirmed by GC/MS.
<b>X</b>	The result was not confirmed when GC/MS Analysis was performed.
<b>B</b>	The analyte was detected in the Method Blank at a concentration greater than the RL.
<b>MB+</b>	The analyte was detected in the Method Blank at a concentration greater than the MDL.
<b>G</b>	The ICB or CCB contained reportable amounts of analyte.
<b>QC-/+</b>	The CCV recovery failed low (-) or high (+).
<b>R/QDR</b>	The RPD was outside of accepted recovery limits.
<b>QL-/+</b>	The LCS or LCSD recovery failed low (-) or high (+).
<b>QLR</b>	The LCS/LCSD RPD was outside of accepted recovery limits.
<b>QM-/+</b>	The MS or MSD recovery failed low (-) or high (+).
<b>QMR</b>	The MS/MSD RPD was outside of accepted recovery limits.
<b>QV-/+</b>	The ICV recovery failed low (-) or high (+).
<b>S</b>	The spike result was outside of accepted recovery limits.
<b>W</b>	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
<b>Z</b>	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

### Acronyms

<b>ND</b>	Not Detected	<b>RL</b>	Reporting Limit
<b>QC</b>	Quality Control	<b>MDL</b>	Method Detection Limit
<b>MB</b>	Method Blank	<b>LOD</b>	Level of Detection
<b>LCS</b>	Laboratory Control Sample	<b>LOQ</b>	Level of Quantitation
<b>LCSD</b>	Laboratory Control Sample Duplicate	<b>PQL</b>	Practical Quantitation Limit
<b>QCS</b>	Quality Control Sample	<b>CRQL</b>	Contract Required Quantitation Limit
<b>DUP</b>	Duplicate	<b>PL</b>	Permit Limit
<b>MS</b>	Matrix Spike	<b>RegLvl</b>	Regulatory Limit
<b>MSD</b>	Matrix Spike Duplicate	<b>MCL</b>	Maximum Contamination Limit
<b>RPD</b>	Relative Percent Different	<b>MinCL</b>	Minimum Compound Limit
<b>ICV</b>	Initial Calibration Verification	<b>RA</b>	Reanalysis
<b>ICB</b>	Initial Calibration Blank	<b>RE</b>	Reextraction
<b>CCV</b>	Continuing Calibration Verification	<b>TIC</b>	Tentatively Identified Compound
<b>CCB</b>	Continuing Calibration Blank	<b>RT</b>	Retention Time
<b>RLC</b>	Reporting Limit Check	<b>CF</b>	Calibration Factor

**This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.**



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

**Workorder**  
**Sample Summary**  
 WO#: **24060584**  
**24-Jun-24**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24060584-001	24051567-001		6/3/2024 11:41:00 AM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-002	24051567-002		6/3/2024 1:34:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-003	24051567-003		6/4/2024 12:02:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-004	24051567-004		6/4/2024 12:50:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-005	24051567-005		6/4/2024 10:13:00 AM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-006	24051567-006		6/3/2024 12:40:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-007	24051567-007		6/4/2024 1:15:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-008	24051567-008		6/4/2024 12:20:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-009	24051567-009		6/4/2024 1:05:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-010	24051567-010		6/4/2024 12:58:00 PM	6/7/2024 12:35:00 PM	Non-Potable Water
24060584-011	24051567-011		6/3/2024 11:41:00 AM	6/7/2024 12:35:00 PM	Non-Potable Water



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# DATES REPORT

WO#: **24060584**  
**24-Jun-24**

**Client:** TEKLAB Inc,  
**Project:** 24051567

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24060584-001A	24051567-001	6/3/2024 11:41:00 AM	Non-Potable Water	Combined Radium (EPA903+904)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-226 (EPA 903.0)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-228 (EPA 904.0)		6/14/2024 11:23:00 AM	6/19/2024 2:48:00 PM
24060584-002A	24051567-002	6/3/2024 1:34:00 PM		Combined Radium (EPA903+904)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-226 (EPA 903.0)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-228 (EPA 904.0)		6/14/2024 11:23:00 AM	6/19/2024 2:48:00 PM
24060584-003A	24051567-003	6/4/2024 12:02:00 PM		Combined Radium (EPA903+904)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-226 (EPA 903.0)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-228 (EPA 904.0)		6/14/2024 11:23:00 AM	6/19/2024 2:48:00 PM
24060584-004A	24051567-004	6/4/2024 12:50:00 PM		Combined Radium (EPA903+904)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-226 (EPA 903.0)		6/14/2024 11:23:00 AM	6/20/2024 9:47:00 AM
				Radium-228 (EPA 904.0)		6/14/2024 11:23:00 AM	6/19/2024 2:48:00 PM
24060584-005A	24051567-005	6/4/2024 10:13:00 AM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM
24060584-006A	24051567-006	6/3/2024 12:40:00 PM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM
24060584-007A	24051567-007	6/4/2024 1:15:00 PM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM
24060584-008A	24051567-008	6/4/2024 12:20:00 PM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM

Original



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# DATES REPORT

WO#: **24060584**  
**24-Jun-24**

**Client:** TEKLAB Inc,  
**Project:** 24051567

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24060584-008A	24051567-008	6/4/2024 12:20:00 PM	Non-Potable Water	Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM
24060584-009A	24051567-009	6/4/2024 1:05:00 PM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM
24060584-010A	24051567-010	6/4/2024 12:58:00 PM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM
24060584-011A	24051567-011	6/3/2024 11:41:00 AM		Combined Radium (EPA903+904)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-226 (EPA 903.0)		6/17/2024 10:51:00 AM	6/21/2024 9:37:00 AM
				Radium-228 (EPA 904.0)		6/17/2024 10:51:00 AM	6/20/2024 2:41:00 PM

Original



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-001  
**Client Sample ID:** 24051567-001

**Collection Date:** 6/3/2024 11:41:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.59	2.00	U	pCi/L	± 0.420	1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.06	1.00	U	pCi/L	± 0.0500	1	6/20/2024 9:47:00 AM
Yield	1.00					1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.53	1.00	U	pCi/L	± 0.370	1	6/19/2024 2:48:00 PM
Yield	1.00					1	6/19/2024 2:48:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		





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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-002  
**Client Sample ID:** 24051567-002

**Collection Date:** 6/3/2024 1:34:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.92	2.00	U	pCi/L	± 0.450	1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.17	1.00	U	pCi/L	± 0.0700	1	6/20/2024 9:47:00 AM
Yield	1.00					1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.75	1.00	J	pCi/L	± 0.380	1	6/19/2024 2:48:00 PM
Yield	1.00					1	6/19/2024 2:48:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-003  
**Client Sample ID:** 24051567-003

**Collection Date:** 6/4/2024 12:02:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.21	2.00	U	pCi/L	± 0.510	1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.25	1.00	U	pCi/L	± 0.0800	1	6/20/2024 9:47:00 AM
Yield	1.00					1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.96	1.00	J	pCi/L	± 0.430	1	6/19/2024 2:48:00 PM
Yield	1.00					1	6/19/2024 2:48:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



Summit Environmental Technologies, Inc.  
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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-004  
**Client Sample ID:** 24051567-004

**Collection Date:** 6/4/2024 12:50:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.94	2.00	U	pCi/L	± 0.470	1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.22	1.00	U	pCi/L	± 0.0700	1	6/20/2024 9:47:00 AM
Yield	1.00					1	6/20/2024 9:47:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.72	1.00	J	pCi/L	± 0.400	1	6/19/2024 2:48:00 PM
Yield	1.00					1	6/19/2024 2:48:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-005  
**Client Sample ID:** 24051567-005

**Collection Date:** 6/4/2024 10:13:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.93	2.00	U	pCi/L	± 0.610	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.12	1.00	U	pCi/L	± 0.0600	1	6/21/2024 9:37:00 AM
Yield	1.00					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.81	1.00	J	pCi/L	± 0.550	1	6/20/2024 2:41:00 PM
Yield	1.00					1	6/20/2024 2:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-006  
**Client Sample ID:** 24051567-006

**Collection Date:** 6/3/2024 12:40:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.12	2.00	U	pCi/L	± 0.960	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.12	1.00	U	pCi/L	± 0.0600	1	6/21/2024 9:37:00 AM
Yield	0.990					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	-1.46	1.00	U	pCi/L	± 0.900	1	6/20/2024 2:41:00 PM
Yield	1.00					1	6/20/2024 2:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-007  
**Client Sample ID:** 24051567-007

**Collection Date:** 6/4/2024 1:15:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.23	2.00	U	pCi/L	± 0.440	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.04	1.00	U	pCi/L	± 0.0400	1	6/21/2024 9:37:00 AM
Yield	0.970					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.19	1.00	U	pCi/L	± 0.400	1	6/20/2024 2:41:00 PM
Yield	0.980					1	6/20/2024 2:41:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
J	Analyte detected below quantitation limits		





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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-008  
**Client Sample ID:** 24051567-008

**Collection Date:** 6/4/2024 12:20:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.66	2.00	U	pCi/L	± 0.630	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.03	1.00	U	pCi/L	± 0.0400	1	6/21/2024 9:37:00 AM
Yield	0.960					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	1.63	1.00		pCi/L	± 0.590	1	6/20/2024 2:41:00 PM
Yield	0.980					1	6/20/2024 2:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-009  
**Client Sample ID:** 24051567-009

**Collection Date:** 6/4/2024 1:05:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.62	2.00	U	pCi/L	± 0.510	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.04	1.00	U	pCi/L	± 0.0400	1	6/21/2024 9:37:00 AM
Yield	1.00					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.58	1.00	U	pCi/L	± 0.470	1	6/20/2024 2:41:00 PM
Yield	1.00					1	6/20/2024 2:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-010  
**Client Sample ID:** 24051567-010

**Collection Date:** 6/4/2024 12:58:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.8	2.00	U	pCi/L	± 0.510	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.13	1.00	U	pCi/L	± 0.0600	1	6/21/2024 9:37:00 AM
Yield	1.00					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.67	1.00	J	pCi/L	± 0.450	1	6/20/2024 2:41:00 PM
Yield	1.00					1	6/20/2024 2:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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# Analytical Report

(consolidated)

WO#: **24060584**

Date Reported: **6/24/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24051567  
**Lab ID:** 24060584-011  
**Client Sample ID:** 24051567-011

**Collection Date:** 6/3/2024 11:41:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.67	2.00	U	pCi/L	± 0.510	1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.03	1.00	U	pCi/L	± 0.0300	1	6/21/2024 9:37:00 AM
Yield	1.00					1	6/21/2024 9:37:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.64	1.00	J	pCi/L	± 0.480	1	6/20/2024 2:41:00 PM
Yield	1.00					1	6/20/2024 2:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test
	J	Analyte detected below quantitation limits		



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## QC SUMMARY REPORT

WO#: 24060584  
 24-Jun-24

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76111

Sample ID: <b>MB-76111</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/14/2024</b>	RunNo: <b>187858</b>				
Client ID: <b>PBW</b>	Batch ID: <b>76111</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/19/2024</b>	SeqNo: <b>5091807</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: <b>LCS-76111</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/14/2024</b>	RunNo: <b>187858</b>				
Client ID: <b>LCSW</b>	Batch ID: <b>76111</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/19/2024</b>	SeqNo: <b>5091808</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.41	1.00	5.000	0	68.2	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-76111</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/14/2024</b>	RunNo: <b>187858</b>				
Client ID: <b>LCSS02</b>	Batch ID: <b>76111</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/19/2024</b>	SeqNo: <b>5091809</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.51	1.00	5.000	0	70.2	50	130	3.410	2.89	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24060584

24-Jun-24

**Client:** TEKLAB Inc,

**Project:** 24051567

**BatchID:** 76111

Sample ID: <b>24060579-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/14/2024</b>	RunNo: <b>187858</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>76111</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>6/19/2024</b>	SeqNo: <b>5091823</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	1.08	1.00		0	0			1.130	4.52	20	
Yield	1.00			0	0			1.000	0		

Sample ID: <b>24060580-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/14/2024</b>	RunNo: <b>187858</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>76111</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>6/19/2024</b>	SeqNo: <b>5091825</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0.8200	200	20	RU
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec





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# QC SUMMARY REPORT

WO#: 24060584  
 24-Jun-24

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76111

Sample ID: <b>MB-76111</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/14/2024</b>	RunNo: <b>187863</b>						
Client ID: <b>PBW</b>	Batch ID: <b>76111</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/20/2024</b>	SeqNo: <b>5092117</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: <b>LCS-76111</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/14/2024</b>	RunNo: <b>187863</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>76111</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/20/2024</b>	SeqNo: <b>5092118</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.77	1.00	5.000	0	95.4	70	130				

Sample ID: <b>LCSD-76111</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/14/2024</b>	RunNo: <b>187863</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>76111</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/20/2024</b>	SeqNo: <b>5092119</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.71	1.00	5.000	0	94.2	70	130	4.770	1.27	20	

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



Summit Environmental Technologies, Inc.  
 3310 Win St.  
 Cuyahoga Falls, Ohio 44223  
 TEL: (330) 253-8211 FAX: (330) 253-4489  
 Website: <http://www.settek.com>

## QC SUMMARY REPORT

WO#: **24060584**  
**24-Jun-24**

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76111

Sample ID: <b>24060579-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/14/2024</b>	RunNo: <b>187863</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>76111</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/20/2024</b>	SeqNo: <b>5092133</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24060584  
 24-Jun-24

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76249

Sample ID: <b>MB-76249</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/17/2024</b>			RunNo: <b>187992</b>		
Client ID: <b>PBW</b>	Batch ID: <b>76249</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/20/2024</b>			SeqNo: <b>5095576</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	0.980			0	0						

Sample ID: <b>LCS-76249</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/17/2024</b>			RunNo: <b>187992</b>		
Client ID: <b>LCSW</b>	Batch ID: <b>76249</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/20/2024</b>			SeqNo: <b>5095577</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.01	1.00	5.000	0	60.2	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-76249</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/17/2024</b>			RunNo: <b>187992</b>		
Client ID: <b>LCSS02</b>	Batch ID: <b>76249</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/20/2024</b>			SeqNo: <b>5095578</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.60	1.00	5.000	0	72.0	50	130	3.010	17.9	20	
Yield	0.970			0	0			1.000	3.05		

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24060584  
 24-Jun-24

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76249

Sample ID: <b>24060747-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/17/2024</b>			RunNo: <b>187992</b>		
Client ID: <b>BatchQC</b>	Batch ID: <b>76249</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/20/2024</b>			SeqNo: <b>5095595</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.960	1.00		0	0			0	200	20	RJ
Yield	1.00			0	0			1.000	0		

Sample ID: <b>24060865-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b> Units: <b>pCi/L</b>				Prep Date: <b>6/17/2024</b>			RunNo: <b>187992</b>		
Client ID: <b>BatchQC</b>	Batch ID: <b>76249</b>	TestNo: <b>E904.0</b>		<b>E903-904</b>		Analysis Date: <b>6/20/2024</b>			SeqNo: <b>5095597</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	U
Yield	0.900			0	0			1.000	10.5		

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec



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# QC SUMMARY REPORT

WO#: **24060584**  
 24-Jun-24

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76249

Sample ID: <b>MB-76249</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/17/2024</b>	RunNo: <b>187997</b>
Client ID: <b>PBW</b>	Batch ID: <b>76249</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/21/2024</b>	SeqNo: <b>5095689</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	ND	1.00			
Yield	0.990				U

Sample ID: <b>LCS-76249</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/17/2024</b>	RunNo: <b>187997</b>
Client ID: <b>LCSW</b>	Batch ID: <b>76249</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/21/2024</b>	SeqNo: <b>5095690</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	4.75	1.00	5.000	0	95.0 70 130

Sample ID: <b>LCSD-76249</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/17/2024</b>	RunNo: <b>187997</b>
Client ID: <b>LCSS02</b>	Batch ID: <b>76249</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/21/2024</b>	SeqNo: <b>5095691</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Radium-226	5.77	1.00	5.000	0	115 70 130 4.750 19.4 20

Sample ID: <b>24060747-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/17/2024</b>	RunNo: <b>187997</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>76249</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/21/2024</b>	SeqNo: <b>5095707</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

**Qualifiers:** H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits M Manual Integration used to determine area respons  
 ND Not Detected PL Permit Limit R RPD outside accepted recovery limits  
 RL Reporting Detection Limit U Samples with CalcVal < MDL W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24060584  
 24-Jun-24

**Client:** TEKLAB Inc,  
**Project:** 24051567

**BatchID:** 76249

Sample ID: <b>24060747-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/17/2024</b>	RunNo: <b>187997</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>76249</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/21/2024</b>	SeqNo: <b>5095707</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

Sample ID: <b>24060865-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>6/17/2024</b>	RunNo: <b>187997</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>76249</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>6/21/2024</b>	SeqNo: <b>5095709</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

**Qualifiers:**

- |    |  |    |  |   |  |
|----|--|----|--|---|--|
| H  | Holding times for preparation or analysis exceeded | J  | Analyte detected below quantitation limits | M | Manual Integration used to determine area respons    |
| ND | Not Detected                                       | PL | Permit Limit                               | R | RPD outside accepted recovery limits                 |
| RL | Reporting Detection Limit                          | U  | Samples with CalcVal < MDL                 | W | Sample container temperature is out of limit as spec |



**TEKLAB, INC. Chain of Custody**

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

**24060584**

Pg \_\_\_ of \_\_\_

Are the samples chilled? YES  NO  With:  Ice  Blue Ice  Preserved in:  Lab  Field

Teklab Inc  
5445 Horseshoe Lake Road  
Collinsville, IL 62234

Project# 24051567

Contact: Elizabeth Hurley  
Standard TAT

Email: ehurley@teklabinc.com  
Billing/PO: 36433  
Phone: (618) 344-1004 ext. 33

Cooler Temp: 18.6-19.9  
Sampler: Client  
Comments: Please issue reports and invoices via email only  
Please analyze for Radium 226/228 per your usual methods.  
Any changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.

QC Level: 2

**PLEASE NOTE:**

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyzer/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226	Radium 228	Combined 226/228								
	24051567-001	6/3/24 1141	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-002	6/3/24 1334	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-003	6/4/24 1202	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-004	6/4/24 1250	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-005	6/4/24 1013	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-006	6/3/24 1240	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-007	6/4/24 1315	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-008	6/4/24 1220	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-009	6/4/24 1305	HNO3	Aqueous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-010	6/4/24 1258	HNO3	Aqueous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
	24051567-011	6/3/24 1141	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

Relinquished By: *Michelle Swales* Date/Time: *6/5/24 1200*

Received By: *Juan Pablo* Date/Time: *6/7/24, 1235*



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 Website: http://www.settek.com

# Sample Log-In Check List

Client Name: TEK-IL-62234-A

Work Order Number: 24060584

RcptNo: 1

Logged by:	Tegan A. Richards	6/7/2024 12:35:00 PM	<i>Tegan Richards</i>
Completed By:	Tegan A. Richards	6/8/2024 1:06:31 PM	<i>Tegan Richards</i>
Reviewed By:	Jennifer Woolf	6/10/2024 12:36:15 PM	<i>Jennifer Woolf</i>

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? FedEx

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
Not required  
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.6	Good	Not Present			



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## Sample Log-In Check List

Client Name: TEK-IL-62234-A

Work Order Number: 24060584

RcptNo: 1

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	19.9	Good	Not Present			
3	19.9	Good	Not Present			



October 09, 2024

Jason McLaurin  
Southern Illinois Power Cooperation  
11543 Lake of Egypt Road  
Marion, IL 62959  
TEL: (618) 964-1448  
FAX:



Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

**RE:** Groundwater Monitoring

**WorkOrder:** 24080520

Dear Jason McLaurin:

TEKLAB, INC received 11 samples on 9/5/2024 3:57:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Elizabeth A. Hurley  
Director of Customer Service  
(618)344-1004 ex 33  
[ehurley@teklabinc.com](mailto:ehurley@teklabinc.com)



## Report Contents

<http://www.teklabinc.com/>

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

---

**This reporting package includes the following:**

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Quality Control Results	18
Receiving Check List	31
Chain of Custody	Appended



**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### Abbr Definition

\* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### Qualifiers

- # - Unknown hydrocarbon
- C - RL shown is a Client Requested Quantitation Limit
- H - Holding times exceeded
- J - Analyte detected below quantitation limits
- ND - Not Detected at the Reporting Limit
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- I - Associated internal standard was outside method criteria
- M - Manual Integration used to determine area response
- R - RPD outside accepted recovery limits
- T - TIC(Tentatively identified compound)

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

**Cooler Receipt Temp:** 10.3 °C

An employee of Teklab, Inc. collected the sample(s).

Ra226/228 analyses were performed by Summit Environmental Technologies, Inc. See attached report for results and QC.

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**Locations**

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**Collinsville**

**Address** 5445 Horseshoe Lake Road  
Collinsville, IL 62234-7425  
**Phone** (618) 344-1004  
**Fax** (618) 344-1005  
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## Accreditations

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Lab ID: 24080520-001

Client Sample ID: EBG

Matrix: GROUNDWATER

Collection Date: 09/04/2024 12:03

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		9.68	ft	1	09/04/2024 12:03	R352857
Elevation of groundwater surface	*	0	0		515.19	ft	1	09/04/2024 12:03	R352857
Measuring Point Elevation	*	0	0		524.87	ft	1	09/04/2024 12:03	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		3.50	gal	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		60	NTU	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		116	mV	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.4977	mS/cm	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		20.3	°C	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		5.25	mg/L	1	09/04/2024 12:03	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.71		1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		352	mg/L	1	09/06/2024 14:15	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		0.52	mg/L	10	09/05/2024 18:29	R352713
Chloride	*	1.00	5.00		9.59	mg/L	10	09/05/2024 18:29	R352713
Sulfate	*	0.33	10.0		81.6	mg/L	10	09/05/2024 18:29	R352713
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0495	mg/L	1	09/10/2024 11:41	228042
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	09/10/2024 11:41	228042
Calcium	NELAP	0.0350	0.100		11.1	mg/L	1	09/10/2024 11:41	228042
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0008	mg/L	5	09/10/2024 11:39	228042
Arsenic	NELAP	0.0004	0.0010	J	0.0005	mg/L	5	09/09/2024 16:01	228042
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:09	228042
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:09	228042
Chromium	NELAP	0.0007	0.0015	J	0.0012	mg/L	5	09/09/2024 16:01	228042
Cobalt	NELAP	0.0001	0.0010	J	0.0004	mg/L	5	09/09/2024 16:01	228042
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 10:09	228042
Lithium	*	0.0015	0.0030		0.0200	mg/L	5	09/09/2024 10:09	228042
Molybdenum	NELAP	0.0006	0.0015	J	0.0015	mg/L	5	09/09/2024 16:01	228042
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 16:01	228042
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 10:09	228042
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/06/2024 8:24	227990
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Lab ID: 24080520-002

Client Sample ID: EP-1

Matrix: GROUNDWATER

Collection Date: 09/04/2024 12:56

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		12.03	ft	1	09/04/2024 12:56	R352857
Elevation of groundwater surface	*	0	0		507.69	ft	1	09/04/2024 12:56	R352857
Measuring Point Elevation	*	0	0		519.72	ft	1	09/04/2024 12:56	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.80	gal	1	09/04/2024 12:56	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		5.7	NTU	1	09/04/2024 12:56	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		156	mV	1	09/04/2024 12:56	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.6699	mS/cm	1	09/04/2024 12:56	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		18.8	°C	1	09/04/2024 12:56	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.91	mg/L	1	09/04/2024 12:56	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.21		1	09/04/2024 12:56	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		2580	mg/L	1	09/06/2024 14:16	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50	J	0.10	mg/L	10	09/05/2024 18:41	R352713
Chloride	*	1.00	5.00		49.0	mg/L	10	09/05/2024 18:41	R352713
Sulfate	*	0.33	10.0		1590	mg/L	10	09/05/2024 18:41	R352713
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0228	mg/L	1	09/10/2024 11:42	228042
Boron	NELAP	0.0090	0.0200		1.50	mg/L	1	09/10/2024 11:42	228042
Calcium	NELAP	0.0350	0.100		579	mg/L	1	09/10/2024 11:42	228042
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0005	mg/L	5	09/10/2024 11:44	228042
Arsenic	NELAP	0.0004	0.0010	J	0.0004	mg/L	5	09/09/2024 16:07	228042
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:14	228042
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:14	228042
Chromium	NELAP	0.0007	0.0015	J	0.0010	mg/L	5	09/09/2024 16:07	228042
Cobalt	NELAP	0.0001	0.0010	J	0.0004	mg/L	5	09/09/2024 16:07	228042
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 10:14	228042
Lithium	*	0.0015	0.0030		0.0145	mg/L	5	09/09/2024 10:14	228042
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	09/09/2024 16:07	228042
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	09/09/2024 16:07	228042
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 10:14	228042
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/06/2024 8:26	227990
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24080520-003  
 Matrix: GROUNDWATER

Work Order: 24080520  
 Report Date: 09-Oct-24

Client Sample ID: EP-2

Collection Date: 09/04/2024 12:34

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		10.75	ft	1	09/04/2024 12:34	R352857
Elevation of groundwater surface	*	0	0		503.04	ft	1	09/04/2024 12:34	R352857
Measuring Point Elevation	*	0	0		513.79	ft	1	09/04/2024 12:34	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.30	gal	1	09/04/2024 12:34	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.8	NTU	1	09/04/2024 12:34	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-94	mV	1	09/04/2024 12:34	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		3.2344	mS/cm	1	09/04/2024 12:34	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		23.9	°C	1	09/04/2024 12:34	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.81	mg/L	1	09/04/2024 12:34	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.20		1	09/04/2024 12:34	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		3890	mg/L	1	09/06/2024 14:16	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50	J	0.20	mg/L	10	09/05/2024 18:53	R352713
Chloride	*	1.00	5.00		67.6	mg/L	10	09/05/2024 18:53	R352713
Sulfate	*	0.33	10.0		2420	mg/L	10	09/05/2024 18:53	R352713
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0255	mg/L	1	09/10/2024 11:44	228042
Boron	NELAP	0.0090	0.0200		0.403	mg/L	1	09/10/2024 11:44	228042
Calcium	NELAP	0.0350	0.100		514	mg/L	1	09/10/2024 11:44	228042
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/10/2024 11:49	228042
Arsenic	NELAP	0.0004	0.0010		0.0033	mg/L	5	09/09/2024 16:12	228042
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:20	228042
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:20	228042
Chromium	NELAP	0.0007	0.0015		0.0201	mg/L	5	09/09/2024 16:12	228042
Cobalt	NELAP	0.0001	0.0010		0.0477	mg/L	5	09/09/2024 16:12	228042
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 10:20	228042
Lithium	*	0.0015	0.0030		0.0197	mg/L	5	09/09/2024 10:20	228042
Molybdenum	NELAP	0.0006	0.0015	J	0.0007	mg/L	5	09/09/2024 16:12	228042
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 16:12	228042
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 10:20	228042
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/06/2024 8:28	227990
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24080520-004  
 Matrix: GROUNDWATER

Work Order: 24080520  
 Report Date: 09-Oct-24

Client Sample ID: EP-3

Collection Date: 09/05/2024 12:37

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		17.62	ft	1	09/05/2024 12:37	R352857
Elevation of groundwater surface	*	0	0		501.33	ft	1	09/05/2024 12:37	R352857
Measuring Point Elevation	*	0	0		518.95	ft	1	09/05/2024 12:37	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.60	gal	1	09/05/2024 12:37	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.5	NTU	1	09/05/2024 12:37	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-53	mV	1	09/05/2024 12:37	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1.1618	mS/cm	1	09/05/2024 12:37	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		22.8	°C	1	09/05/2024 12:37	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.31	mg/L	1	09/05/2024 12:37	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.04		1	09/05/2024 12:37	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		815	mg/L	2.5	09/06/2024 14:16	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50	J	0.10	mg/L	10	09/06/2024 10:07	R352784
Chloride	*	1.00	5.00		151	mg/L	10	09/06/2024 10:07	R352784
Sulfate	*	0.33	10.0		123	mg/L	10	09/06/2024 10:07	R352784
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0873	mg/L	1	09/09/2024 15:29	228074
Boron	NELAP	0.0090	0.0200		0.0587	mg/L	1	09/09/2024 15:29	228074
Calcium	NELAP	0.0350	0.100		42.5	mg/L	1	09/09/2024 15:29	228074
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0015	mg/L	5	09/10/2024 10:44	228074
Arsenic	NELAP	0.0004	0.0010		0.0079	mg/L	5	09/09/2024 14:46	228074
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 8:54	228074
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 8:54	228074
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	09/09/2024 14:46	228074
Cobalt	NELAP	0.0001	0.0010		0.0802	mg/L	5	09/09/2024 14:46	228074
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 8:54	228074
Lithium	*	0.0015	0.0030		0.0382	mg/L	5	09/09/2024 8:54	228074
Molybdenum	NELAP	0.0006	0.0015	J	0.0013	mg/L	5	09/09/2024 8:54	228074
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	09/09/2024 14:46	228074
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 8:54	228074
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/09/2024 10:42	228093
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24080520-005  
 Matrix: GROUNDWATER

Work Order: 24080520  
 Report Date: 09-Oct-24

Client Sample ID: EP-4

Collection Date: 09/05/2024 13:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		7.22	ft	1	09/05/2024 13:35	R352857
Elevation of groundwater surface	*	0	0		512.52	ft	1	09/05/2024 13:35	R352857
Measuring Point Elevation	*	0	0		519.74	ft	1	09/05/2024 13:35	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		3.40	gal	1	09/05/2024 13:35	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		3.7	NTU	1	09/05/2024 13:35	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		-38	mV	1	09/05/2024 13:35	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		2.0274	mS/cm	1	09/05/2024 13:35	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		21.9	°C	1	09/05/2024 13:35	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.21	mg/L	1	09/05/2024 13:35	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.80		1	09/05/2024 13:35	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		1810	mg/L	2.5	09/06/2024 14:41	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		ND	mg/L	10	09/06/2024 10:42	R352784
Chloride	*	1.00	5.00		490	mg/L	10	09/06/2024 10:42	R352784
Sulfate	*	0.33	10.0		484	mg/L	10	09/06/2024 10:42	R352784
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0305	mg/L	1	09/09/2024 15:30	228074
Boron	NELAP	0.0090	0.0200		10.8	mg/L	1	09/09/2024 15:30	228074
Calcium	NELAP	0.0350	0.100		153	mg/L	1	09/09/2024 15:30	228074
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010	J	0.0007	mg/L	5	09/10/2024 10:49	228074
Arsenic	NELAP	0.0004	0.0010		0.0122	mg/L	5	09/09/2024 14:52	228074
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:00	228074
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:00	228074
Chromium	NELAP	0.0007	0.0015	J	0.0008	mg/L	5	09/09/2024 14:52	228074
Cobalt	NELAP	0.0001	0.0010		0.217	mg/L	5	09/09/2024 14:52	228074
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 9:00	228074
Lithium	*	0.0015	0.0030	J	0.0026	mg/L	5	09/09/2024 9:00	228074
Molybdenum	NELAP	0.0006	0.0015	J	0.0008	mg/L	5	09/09/2024 9:00	228074
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	09/09/2024 14:52	228074
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 9:00	228074
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/09/2024 10:44	228093
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24080520-006  
 Matrix: GROUNDWATER

Work Order: 24080520  
 Report Date: 09-Oct-24

Client Sample ID: EP-5

Collection Date: 09/04/2024 13:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		13.99	ft	1	09/04/2024 13:45	R352857
Elevation of groundwater surface	*	0	0		513.60	ft	1	09/04/2024 13:45	R352857
Measuring Point Elevation	*	0	0		527.59	ft	1	09/04/2024 13:45	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		0.80	gal	1	09/04/2024 13:45	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		2.4	NTU	1	09/04/2024 13:45	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		146	mV	1	09/04/2024 13:45	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.4035	mS/cm	1	09/04/2024 13:45	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		20.2	°C	1	09/04/2024 13:45	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		5.90	mg/L	1	09/04/2024 13:45	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.49		1	09/04/2024 13:45	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		274	mg/L	1	09/06/2024 14:41	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50	J	0.29	mg/L	10	09/05/2024 19:04	R352713
Chloride	*	1.0	5.0	J	2.6	mg/L	10	09/05/2024 19:04	R352713
Sulfate	*	0.33	10.0		99.3	mg/L	10	09/05/2024 19:04	R352713
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0527	mg/L	1	09/10/2024 12:04	228042
Boron	NELAP	0.0090	0.020	J	0.012	mg/L	1	09/10/2024 12:04	228042
Calcium	NELAP	0.0350	0.100		15.9	mg/L	1	09/10/2024 12:04	228042
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/10/2024 11:54	228042
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/09/2024 16:18	228042
Beryllium	NELAP	0.0002	0.0010	J	0.0004	mg/L	5	09/09/2024 10:26	228042
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:26	228042
Chromium	NELAP	0.0007	0.0015	J	0.0015	mg/L	5	09/09/2024 16:18	228042
Cobalt	NELAP	0.0001	0.0010	J	0.0003	mg/L	5	09/09/2024 16:18	228042
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 10:26	228042
Lithium	*	0.0015	0.0030		0.0045	mg/L	5	09/09/2024 10:26	228042
Molybdenum	NELAP	0.0006	0.0015	J	0.0011	mg/L	5	09/09/2024 16:18	228042
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 16:18	228042
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 10:26	228042
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/06/2024 8:31	227990
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Lab ID: 24080520-007

Client Sample ID: EP-6

Matrix: GROUNDWATER

Collection Date: 09/04/2024 15:21

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		4.93	ft	1	09/04/2024 15:21	R352857
Elevation of groundwater surface	*	0	0		500.18	ft	1	09/04/2024 15:21	R352857
Measuring Point Elevation	*	0	0		505.11	ft	1	09/04/2024 15:21	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		1.10	gal	1	09/04/2024 15:21	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		11	NTU	1	09/04/2024 15:21	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		220	mV	1	09/04/2024 15:21	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.2600	mS/cm	1	09/04/2024 15:21	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		27.6	°C	1	09/04/2024 15:21	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		1.06	mg/L	1	09/04/2024 15:21	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		4.96		1	09/04/2024 15:21	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		244	mg/L	1	09/06/2024 14:42	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		ND	mg/L	10	09/05/2024 19:39	R352713
Chloride	*	1.00	5.00		19.7	mg/L	10	09/05/2024 19:39	R352713
Sulfate	*	0.33	10.0		66.3	mg/L	10	09/05/2024 19:39	R352713
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0390	mg/L	1	09/10/2024 11:46	228042
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	09/10/2024 11:46	228042
Calcium	NELAP	0.0350	0.100		2.47	mg/L	1	09/10/2024 11:46	228042
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/10/2024 12:08	228042
Arsenic	NELAP	0.0004	0.0010	J	0.0005	mg/L	5	09/09/2024 16:24	228042
Beryllium	NELAP	0.0002	0.0010	J	0.0003	mg/L	5	09/09/2024 10:32	228042
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 10:32	228042
Chromium	NELAP	0.0007	0.0015		0.0348	mg/L	5	09/09/2024 16:24	228042
Cobalt	NELAP	0.0001	0.0010		0.0016	mg/L	5	09/09/2024 16:24	228042
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 10:32	228042
Lithium	*	0.0015	0.0030		0.0171	mg/L	5	09/09/2024 10:32	228042
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	09/09/2024 16:24	228042
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 16:24	228042
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 10:32	228042
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/06/2024 8:33	227990
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Lab ID: 24080520-008

Client Sample ID: EP-7

Matrix: GROUNDWATER

Collection Date: 09/05/2024 11:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		14.86	ft	1	09/05/2024 11:35	R352857
Elevation of groundwater surface	*	0	0		500.58	ft	1	09/05/2024 11:35	R352857
Measuring Point Elevation	*	0	0		515.44	ft	1	09/05/2024 11:35	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		3.70	gal	1	09/05/2024 11:35	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		4.9	NTU	1	09/05/2024 11:35	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		6	mV	1	09/05/2024 11:35	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		1.2281	mS/cm	1	09/05/2024 11:35	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		20.9	°C	1	09/05/2024 11:35	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		0.26	mg/L	1	09/05/2024 11:35	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		5.58		1	09/05/2024 11:35	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	40	50		935	mg/L	2.5	09/06/2024 14:42	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		ND	mg/L	10	09/06/2024 12:04	R352784
Chloride	*	1.00	5.00		265	mg/L	10	09/06/2024 12:04	R352784
Sulfate	*	0.33	10.0		201	mg/L	10	09/06/2024 12:04	R352784
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0384	mg/L	1	09/09/2024 15:31	228074
Boron	NELAP	0.0090	0.0200		0.469	mg/L	1	09/09/2024 15:31	228074
Calcium	NELAP	0.0350	0.100		50.5	mg/L	1	09/09/2024 15:31	228074
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/10/2024 10:54	228074
Arsenic	NELAP	0.0004	0.0010		0.0065	mg/L	5	09/09/2024 14:58	228074
Beryllium	NELAP	0.0002	0.0010	J	0.0003	mg/L	5	09/09/2024 9:05	228074
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:05	228074
Chromium	NELAP	0.0007	0.0015		0.0241	mg/L	5	09/09/2024 14:58	228074
Cobalt	NELAP	0.0001	0.0010		0.171	mg/L	5	09/09/2024 14:58	228074
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 9:05	228074
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	09/09/2024 9:05	228074
Molybdenum	NELAP	0.0006	0.0015	J	0.0009	mg/L	5	09/09/2024 9:05	228074
Selenium	NELAP	0.0006	0.0010	J	0.0007	mg/L	5	09/09/2024 14:58	228074
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 9:05	228074
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/09/2024 11:24	228093
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316





# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Lab ID: 24080520-009

Client Sample ID: Equipment Blank

Matrix: AQUEOUS

Collection Date: 09/05/2024 13:48

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	09/06/2024 14:42	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		ND	mg/L	10	09/06/2024 12:15	R352784
Chloride	*	1.00	5.00		ND	mg/L	10	09/06/2024 12:15	R352784
Sulfate	*	0.33	10.0		ND	mg/L	10	09/06/2024 12:15	R352784
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	09/09/2024 15:31	228074
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	09/09/2024 15:31	228074
Calcium	NELAP	0.035	0.10	J	0.075	mg/L	1	09/09/2024 15:31	228074
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/10/2024 10:59	228074
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/09/2024 15:03	228074
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:11	228074
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:11	228074
Chromium	NELAP	0.0007	0.0015		0.0022	mg/L	5	09/09/2024 15:03	228074
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	09/09/2024 15:03	228074
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 9:11	228074
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	09/09/2024 9:11	228074
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	09/09/2024 9:11	228074
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 15:03	228074
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 9:11	228074
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/09/2024 11:19	228093
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Lab ID: 24080520-010

Client Sample ID: Field Blank

Matrix: AQUEOUS

Collection Date: 09/05/2024 11:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		< 20	mg/L	1	09/06/2024 15:13	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		ND	mg/L	10	09/06/2024 12:27	R352784
Chloride	*	1.00	5.00		ND	mg/L	10	09/06/2024 12:27	R352784
Sulfate	*	0.33	10.0		ND	mg/L	10	09/06/2024 12:27	R352784
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		< 0.0025	mg/L	1	09/09/2024 15:34	228074
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	09/09/2024 15:34	228074
Calcium	NELAP	0.0350	0.100		< 0.100	mg/L	1	09/09/2024 15:34	228074
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		0.0011	mg/L	5	09/10/2024 11:34	228074
Arsenic	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/09/2024 15:49	228074
Beryllium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:57	228074
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 9:57	228074
Chromium	NELAP	0.0007	0.0015		< 0.0015	mg/L	5	09/09/2024 15:49	228074
Cobalt	NELAP	0.0001	0.0010		< 0.0010	mg/L	5	09/09/2024 15:49	228074
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 9:57	228074
Lithium	*	0.0015	0.0030		< 0.0030	mg/L	5	09/09/2024 9:57	228074
Molybdenum	NELAP	0.0006	0.0015		< 0.0015	mg/L	5	09/09/2024 15:49	228074
Selenium	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 15:49	228074
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 9:57	228074
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/09/2024 11:22	228093
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316
Radium-228	*	0	0		See Attached	pci/L	1	09/30/2024 15:41	R354316



# Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Groundwater Monitoring  
 Lab ID: 24080520-011  
 Matrix: GROUNDWATER

Work Order: 24080520  
 Report Date: 09-Oct-24

Client Sample ID: Field Duplicate

Collection Date: 09/04/2024 12:03

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
<b>FIELD ELEVATION MEASUREMENTS</b>									
Depth to water from measuring point	*	0	0		9.68	ft	1	09/04/2024 12:03	R352857
Elevation of groundwater surface	*	0	0		515.19	ft	1	09/04/2024 12:03	R352857
Measuring Point Elevation	*	0	0		524.87	ft	1	09/04/2024 12:03	R352857
<b>FIELD PURGE VOLUME</b>									
Purge Volume	*	0	0		3.50	gal	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2130 B FIELD</b>									
Turbidity	*	1.0	1.0		60	NTU	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 18TH ED. 2580 B FIELD</b>									
Oxidation-Reduction Potential	*	-300	-300		116	mV	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2510 B FIELD</b>									
Spec. Conductance, Field	*	0	0		0.4977	mS/cm	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2550 B FIELD</b>									
Temperature	*	0	0		20.3	°C	1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 4500-O G FIELD</b>									
Oxygen, Dissolved	*	0	0		5.25	mg/L	1	09/04/2024 12:03	R352857
<b>SW-846 9040B FIELD</b>									
pH	*	0	1.00		6.71		1	09/04/2024 12:03	R352857
<b>STANDARD METHODS 2540 C (TOTAL) 1997, 2011</b>									
Total Dissolved Solids	NELAP	16	20		344	mg/L	1	09/06/2024 15:15	R352853
<b>SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY</b>									
Fluoride	*	0.03	0.50		0.52	mg/L	10	09/05/2024 20:26	R352713
Chloride	*	1.00	5.00		8.16	mg/L	10	09/05/2024 20:26	R352713
Sulfate	*	0.33	10.0		79.1	mg/L	10	09/05/2024 20:26	R352713
<b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>									
Barium	NELAP	0.0007	0.0025		0.0488	mg/L	1	09/10/2024 12:06	228042
Boron	NELAP	0.0090	0.0200		< 0.0200	mg/L	1	09/10/2024 12:06	228042
Calcium	NELAP	0.0350	0.100		10.6	mg/L	1	09/10/2024 12:06	228042
<b>SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)</b>									
Antimony	NELAP	0.0004	0.0010		< 0.0010	mg/L	5	09/10/2024 11:59	228042
Arsenic	NELAP	0.0004	0.0010	J	0.0005	mg/L	5	09/09/2024 17:21	228042
Beryllium	NELAP	0.0002	0.0010	J	0.0006	mg/L	5	09/09/2024 11:12	228042
Cadmium	NELAP	0.0002	0.0010		< 0.0010	mg/L	5	09/09/2024 11:12	228042
Chromium	NELAP	0.0007	0.0015	J	0.0009	mg/L	5	09/09/2024 17:21	228042
Cobalt	NELAP	0.0001	0.0010	J	0.0005	mg/L	5	09/09/2024 17:21	228042
Lead	NELAP	0.0006	0.0010		< 0.0010	mg/L	5	09/09/2024 11:12	228042
Lithium	*	0.0015	0.0030		0.0207	mg/L	5	09/09/2024 11:12	228042
Molybdenum	NELAP	0.0006	0.0015	J	0.0013	mg/L	5	09/10/2024 11:59	228042
Selenium	NELAP	0.0006	0.0010	J	0.0008	mg/L	5	09/09/2024 17:21	228042
Thallium	NELAP	0.0010	0.0020		< 0.0020	mg/L	5	09/09/2024 11:12	228042
<b>SW-846 7470A (TOTAL)</b>									
Mercury	NELAP	0.00006	0.00020		< 0.00020	mg/L	1	09/06/2024 8:35	227990
<b>EPA 903.0/904.0, RADIUM 226/228</b>									
Radium-226	*	0	0		See Attached	pci/L	1	10/07/2024 14:14	R354316
Radium-228	*	0	0		See Attached	pci/L	1	10/07/2024 14:14	R354316



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### STANDARD METHODS 2510 B FIELD

Batch R352857		SampType: LCS		Units mS/cm							
SampID: LCS-1-JC											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0	S	1.4110	1412	0	0.1	90	110	09/04/2024	

Batch R352857		SampType: LCS		Units mS/cm							
SampID: LCS-1-TC											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0	S	1.4130	1412	0	0.1	90	110	09/04/2024	

Batch R352857		SampType: LCS		Units mS/cm							
SampID: LCS-2-PY											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Spec. Conductance, Field	*	0	S	1.4100	1412	0	0.1	90	110	09/05/2024	

### SW-846 9040B FIELD

Batch R352857		SampType: LCS		Units							
SampID: LCS-1-JC											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.00	7.000	0	100.0	98.57	101.4	09/04/2024	

Batch R352857		SampType: LCS		Units							
SampID: LCS-1-TC											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.05	7.000	0	100.7	98.57	101.4	09/04/2024	

Batch R352857		SampType: LCS		Units							
SampID: LCS-2-PY											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
pH	*	1.00		7.06	7.000	0	100.9	98.57	101.4	09/05/2024	

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R352853		SampType: MBLK		Units mg/L							
SampID: MBLK											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/06/2024	
Total Dissolved Solids		20		< 20	16.00	0	0	-100	100	09/06/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### STANDARD METHODS 2540 C (TOTAL) 1997, 2011

Batch R352853		SampType: LCS		Units mg/L						
SampID: LCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Dissolved Solids		20		<b>904</b>	1000	0	90.4	90	110	09/06/2024
Total Dissolved Solids		20		<b>906</b>	1000	0	90.6	90	110	09/06/2024

Batch R352853		SampType: DUP		Units mg/L						
SampID: 24090189-005ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		50	H	<b>5080</b>				5330	4.90	09/06/2024

Batch R352853		SampType: DUP		Units mg/L						
SampID: 24090197-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		100		<b>480</b>				490.0	2.06	09/06/2024

Batch R352853		SampType: DUP		Units mg/L						
SampID: 24090254-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		50		<b>5540</b>				5535	0.09	09/06/2024

Batch R352853		SampType: DUP		Units mg/L						
SampID: 24090264-001ADUP										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Dissolved Solids		1000		<b>563000</b>				613500	8.55	09/06/2024

### SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY

Batch R352713		SampType: MBLK		Units mg/L						
SampID: MBLK/ICB										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.05		<b>ND</b>						09/05/2024
Chloride		0.50		<b>ND</b>						09/05/2024
Sulfate		1.00		<b>ND</b>						09/05/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY

Batch R352713		SampType: LCS		Units mg/L						
SampID: LCS/ICV/QCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.05		<b>0.98</b>	1.000	0	97.8	90	110	09/05/2024
Chloride		0.50		<b>20.5</b>	20.00	0	102.3	90	110	09/05/2024
Sulfate		1.00		<b>18.8</b>	20.00	0	94.2	90	110	09/05/2024

Batch R352713		SampType: MS		Units mg/L						
SampID: 24080520-006AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride	*	0.50		<b>10.2</b>	10.00	0.2860	98.9	80	120	09/05/2024
Chloride	*	5.00		<b>209</b>	200.0	2.565	103.1	80	120	09/05/2024
Sulfate	*	10.0		<b>291</b>	200.0	99.33	96.0	80	120	09/05/2024

Batch R352713		SampType: MSD		Units mg/L							RPD Limit 15
SampID: 24080520-006AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride	*	0.50		<b>10.2</b>	10.00	0.2860	98.9	10.18	0.06	09/05/2024	
Chloride	*	5.00		<b>209</b>	200.0	2.565	103.3	208.7	0.20	09/05/2024	
Sulfate	*	10.0		<b>293</b>	200.0	99.33	96.6	291.4	0.40	09/05/2024	

Batch R352713		SampType: MS		Units mg/L						
SampID: 24090185-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride	*	0.50		<b>10.1</b>	10.00	0.1640	99.1	80	120	09/05/2024
Chloride	*	5.00		<b>225</b>	200.0	16.04	104.5	80	120	09/05/2024
Sulfate	*	10.0		<b>525</b>	200.0	319.5	103.0	80	120	09/05/2024

Batch R352713		SampType: MSD		Units mg/L							RPD Limit 15
SampID: 24090185-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride	*	0.50		<b>10.1</b>	10.00	0.1640	99.3	10.08	0.19	09/05/2024	
Chloride	*	5.00		<b>225</b>	200.0	16.04	104.6	225.0	0.15	09/05/2024	
Sulfate	*	10.0		<b>524</b>	200.0	319.5	102.4	525.4	0.23	09/05/2024	





## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY

Batch R352713		SampType: MS		Units mg/L						
SampID: 24090186-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.06		<b>1.65</b>	1.100	0.6379	92.3	80	120	09/05/2024
Chloride		0.55		<b>52.8</b>	22.00	29.88	104.1	80	120	09/05/2024
Sulfate		1.10		<b>51.2</b>	22.00	30.48	94.3	80	120	09/05/2024

Batch R352713		SampType: MSD		Units mg/L							RPD Limit 15
SampID: 24090186-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.06		<b>1.66</b>	1.100	0.6379	92.7	1.653	0.28	09/05/2024	
Chloride		0.55		<b>52.8</b>	22.00	29.88	104.1	52.77	0.02	09/05/2024	
Sulfate		1.10		<b>51.2</b>	22.00	30.48	94.3	51.22	0.00	09/05/2024	

Batch R352713		SampType: MS		Units mg/L						
SampID: 24090189-004AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride	*	0.50		<b>10.1</b>	10.00	0.2160	99.3	80	120	09/05/2024
Chloride	*	5.00		<b>231</b>	200.0	20.96	104.9	80	120	09/05/2024
Sulfate	*	10.0		<b>385</b>	200.0	185.8	99.4	80	120	09/05/2024

Batch R352713		SampType: MSD		Units mg/L							RPD Limit 15
SampID: 24090189-004AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride	*	0.50		<b>10.2</b>	10.00	0.2160	99.6	10.14	0.28	09/05/2024	
Chloride	*	5.00		<b>231</b>	200.0	20.96	105.0	230.7	0.13	09/05/2024	
Sulfate	*	10.0		<b>385</b>	200.0	185.8	99.6	384.6	0.10	09/05/2024	

Batch R352713		SampType: MS		Units mg/L						
SampID: 24090207-001AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.06		<b>1.67</b>	1.100	0.6508	93.0	80	120	09/05/2024
Chloride		0.55		<b>64.9</b>	22.00	42.05	103.9	80	120	09/05/2024
Sulfate		1.10		<b>34.4</b>	22.00	14.18	92.0	80	120	09/05/2024



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY

Batch R352713		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 24090207-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride		0.06		<b>1.68</b>	1.100	0.6508	93.5	1.674	0.33	09/05/2024	
Chloride		0.55		<b>64.9</b>	22.00	42.05	104.0	64.91	0.05	09/05/2024	
Sulfate		1.10		<b>34.4</b>	22.00	14.18	92.1	34.41	0.11	09/05/2024	

Batch R352713		SampType: DUP		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 24080856-002CDUP											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Sulfate	*	10.0	HH	<b>50.7</b>				51.31	1.11	09/05/2024	

Batch R352784		SampType: MBLK		Units mg/L						Date Analyzed
SampID: MBLK/ICB										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.05		<b>ND</b>						09/06/2024
Chloride		0.50		<b>ND</b>						09/06/2024
Sulfate		1.00		<b>ND</b>						09/06/2024

Batch R352784		SampType: LCS		Units mg/L						Date Analyzed
SampID: LCS/ICV/QCS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride		0.05		<b>0.99</b>	1.000	0	99.0	90	110	09/06/2024
Chloride		0.50		<b>20.5</b>	20.00	0	102.3	90	110	09/06/2024
Sulfate		1.00		<b>18.8</b>	20.00	0	94.1	90	110	09/06/2024

Batch R352784		SampType: MS		Units mg/L						Date Analyzed
SampID: 24080520-004AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Fluoride	*	0.50		<b>9.99</b>	10.00	0.09900	98.9	80	120	09/06/2024
Chloride	*	5.00		<b>376</b>	200.0	150.6	112.6	80	120	09/06/2024
Sulfate	*	10.0		<b>321</b>	200.0	123.1	98.7	80	120	09/06/2024

Batch R352784		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 24080520-004AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Fluoride	*	0.50		<b>9.97</b>	10.00	0.09900	98.7	9.992	0.20	09/06/2024	
Chloride	*	5.00		<b>371</b>	200.0	150.6	110.3	375.8	1.23	09/06/2024	
Sulfate	*	10.0		<b>317</b>	200.0	123.1	97.0	320.5	1.08	09/06/2024	



## Quality Control Results

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW846 9056A TOTAL ANIONIC COMPOUNDS BY ION CHROMATOGRAPHY

Batch R352784		SampType: MS		Units mg/L							Date Analyzed
SampID: 24080520-005AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride	*	0.50		<b>9.84</b>	10.00	0	98.4	80	120	09/06/2024	
Chloride	*	5.00		<b>717</b>	200.0	490.1	113.4	80	120	09/06/2024	
Sulfate	*	10.0		<b>702</b>	200.0	484.4	108.8	80	120	09/06/2024	

Batch R352784		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24080520-005AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride	*	0.50		<b>9.83</b>	10.00	0	98.3	9.843	0.14	09/06/2024		
Chloride	*	5.00		<b>704</b>	200.0	490.1	106.8	716.8	1.86	09/06/2024		
Sulfate	*	10.0		<b>689</b>	200.0	484.4	102.4	702.1	1.86	09/06/2024		

Batch R352784		SampType: MS		Units mg/L							Date Analyzed
SampID: 24090216-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Fluoride		0.50		<b>10.4</b>	10.00	1.401	89.8	80	120	09/06/2024	
Chloride		5.00		<b>378</b>	200.0	152.4	112.8	80	120	09/06/2024	
Sulfate		10.0		<b>216</b>	200.0	24.56	95.5	80	120	09/06/2024	

Batch R352784		SampType: MSD		Units mg/L							RPD Limit 15	Date Analyzed
SampID: 24090216-001AMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Fluoride		0.50		<b>10.3</b>	10.00	1.401	89.2	10.38	0.55	09/06/2024		
Chloride		5.00		<b>378</b>	200.0	152.4	112.7	378.1	0.07	09/06/2024		
Sulfate		10.0		<b>214</b>	200.0	24.56	94.6	215.5	0.82	09/06/2024		

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 228042		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-228042											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>&lt; 0.0025</b>	0.0007	0	0	-100	100	09/09/2024	
Boron		0.0200		<b>&lt; 0.0200</b>	0.0090	0	0	-100	100	09/09/2024	
Calcium		0.100		<b>&lt; 0.100</b>	0.0350	0	0	-100	100	09/09/2024	



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 228042		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-228042											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.26</b>	2.000	0	113.0	85	115	09/09/2024	
Boron		0.0200		<b>0.538</b>	0.5000	0	107.6	85	115	09/09/2024	
Calcium		0.100		<b>2.80</b>	2.500	0	112.0	85	115	09/09/2024	

Batch 228042		SampType: MS		Units mg/L							Date Analyzed
SampID: 24080520-007CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.13</b>	2.000	0.03900	104.6	75	125	09/10/2024	
Boron		0.0200		<b>0.509</b>	0.5000	0	101.7	75	125	09/10/2024	
Calcium		0.100		<b>4.96</b>	2.500	2.468	99.7	75	125	09/10/2024	

Batch 228042		SampType: MSD		Units mg/L							RPD Limit 20	Date Analyzed
SampID: 24080520-007CMSD												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed		
Barium		0.0025		<b>2.11</b>	2.000	0.03900	103.6	2.130	0.94	09/10/2024		
Boron		0.0200		<b>0.508</b>	0.5000	0	101.5	0.5086	0.18	09/10/2024		
Calcium		0.100		<b>4.96</b>	2.500	2.468	99.7	4.960	0.00	09/10/2024		

Batch 228074		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-228074											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>&lt; 0.0025</b>	0.0007	0	0	-100	100	09/09/2024	
Boron		0.0200		<b>&lt; 0.0200</b>	0.0090	0	0	-100	100	09/09/2024	
Calcium		0.100		<b>&lt; 0.100</b>	0.0350	0	0	-100	100	09/09/2024	

Batch 228074		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-228074											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Barium		0.0025		<b>2.13</b>	2.000	0	106.5	85	115	09/09/2024	
Boron		0.0200		<b>0.512</b>	0.5000	0	102.4	85	115	09/09/2024	
Calcium		0.100		<b>2.55</b>	2.500	0	101.9	85	115	09/09/2024	



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW-846 3005A, 6010B, METALS BY ICP (TOTAL)

Batch 228074		SampType: MS		Units mg/L						
SampID: 24080520-009CMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Barium		0.0025		<b>2.10</b>	2.000	0	105.0	75	125	09/09/2024
Boron		0.0200		<b>0.514</b>	0.5000	0	102.7	75	125	09/09/2024
Calcium		0.100		<b>2.65</b>	2.500	0.07490	102.9	75	125	09/09/2024

Batch 228074		SampType: MSD		Units mg/L						
SampID: 24080520-009CMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Barium		0.0025		<b>2.11</b>	2.000	0	105.5	2.100	0.48	09/09/2024
Boron		0.0200		<b>0.520</b>	0.5000	0	104.0	0.5135	1.26	09/09/2024
Calcium		0.100		<b>2.66</b>	2.500	0.07490	103.5	2.648	0.52	09/09/2024

Batch 228074		SampType: MS		Units mg/L						
SampID: 24090417-004AMS										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Boron		0.0200		<b>0.761</b>	0.5000	0.2511	101.9	75	125	09/09/2024

Batch 228074		SampType: MSD		Units mg/L						
SampID: 24090417-004AMSD										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Boron		0.0200		<b>0.770</b>	0.5000	0.2511	103.8	0.7608	1.19	09/09/2024

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 228042		SampType: MBLK		Units mg/L						
SampID: MBLK-228042										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	09/10/2024
Arsenic		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	09/09/2024
Beryllium		0.0010		< <b>0.0010</b>	0.0002	0	0	-100	100	09/09/2024
Cadmium		0.0010		< <b>0.0010</b>	0.0001	0	0	-100	100	09/09/2024
Chromium		0.0015		< <b>0.0015</b>	0.0007	0	0	-100	100	09/09/2024
Cobalt		0.0010		< <b>0.0010</b>	0.0001	0	0	-100	100	09/09/2024
Lead		0.0010		< <b>0.0010</b>	0.0006	0	0	-100	100	09/09/2024
Lithium	*	0.0030		< <b>0.0030</b>	0.0015	0	0	-100	100	09/09/2024
Molybdenum		0.0015		< <b>0.0015</b>	0.0006	0	0	-100	100	09/09/2024
Selenium		0.0010		< <b>0.0010</b>	0.0006	0	0	-100	100	09/09/2024
Thallium		0.0020		< <b>0.0020</b>	0.0010	0	0	-100	100	09/09/2024



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

**SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)**

**Batch 228042**      **SampType: LCS**      Units mg/L  
 SampID: LCS-228042

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.572</b>	0.5000	0	114.4	85	115	09/10/2024
Arsenic		0.0010		<b>0.507</b>	0.5000	0	101.4	85	115	09/09/2024
Beryllium		0.0010		<b>0.0476</b>	0.0500	0	95.3	85	115	09/09/2024
Cadmium		0.0010		<b>0.0496</b>	0.0500	0	99.2	85	115	09/09/2024
Chromium		0.0015		<b>0.198</b>	0.2000	0	98.8	85	115	09/09/2024
Cobalt		0.0010		<b>0.509</b>	0.5000	0	101.7	85	115	09/09/2024
Lead		0.0010		<b>0.491</b>	0.5000	0	98.2	85	115	09/09/2024
Lithium	*	0.0030		<b>0.481</b>	0.5000	0	96.3	85	115	09/09/2024
Molybdenum		0.0015		<b>0.484</b>	0.5000	0	96.7	85	115	09/09/2024
Selenium		0.0010		<b>0.485</b>	0.5000	0	97.0	85	115	09/09/2024
Thallium		0.0020		<b>0.236</b>	0.2500	0	94.6	85	115	09/09/2024

**Batch 228042**      **SampType: MS**      Units mg/L  
 SampID: 24080520-007CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.543</b>	0.5000	0	108.7	75	125	09/10/2024
Arsenic		0.0010		<b>0.491</b>	0.5000	0.0004551	98.1	75	125	09/09/2024
Beryllium		0.0010		<b>0.0520</b>	0.0500	0.0002544	103.5	75	125	09/09/2024
Cadmium		0.0010		<b>0.0485</b>	0.0500	0	96.9	75	125	09/09/2024
Chromium		0.0015		<b>0.231</b>	0.2000	0.03478	98.3	75	125	09/09/2024
Cobalt		0.0010		<b>0.498</b>	0.5000	0.001636	99.3	75	125	09/09/2024
Lead		0.0010		<b>0.493</b>	0.5000	0	98.6	75	125	09/09/2024
Lithium	*	0.0030		<b>0.529</b>	0.5000	0.01708	102.3	75	125	09/09/2024
Molybdenum		0.0015		<b>0.446</b>	0.5000	0	89.3	75	125	09/09/2024
Selenium		0.0010		<b>0.476</b>	0.5000	0	95.3	75	125	09/09/2024
Thallium		0.0020		<b>0.236</b>	0.2500	0	94.3	75	125	09/09/2024





## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 228042		SampType: MSD		Units mg/L				RPD Limit 20			
SampID: 24080520-007CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		<b>0.574</b>	0.5000	0	114.9	0.5435	5.54	09/10/2024	
Arsenic		0.0010		<b>0.500</b>	0.5000	0.0004551	99.9	0.4912	1.80	09/09/2024	
Beryllium		0.0010		<b>0.0515</b>	0.0500	0.0002544	102.5	0.05200	0.94	09/09/2024	
Cadmium		0.0010		<b>0.0485</b>	0.0500	0	97.1	0.04845	0.15	09/09/2024	
Chromium		0.0015		<b>0.233</b>	0.2000	0.03478	99.3	0.2314	0.83	09/09/2024	
Cobalt		0.0010		<b>0.507</b>	0.5000	0.001636	101.1	0.4979	1.82	09/09/2024	
Lead		0.0010		<b>0.486</b>	0.5000	0	97.2	0.4932	1.52	09/09/2024	
Lithium	*	0.0030		<b>0.537</b>	0.5000	0.01708	103.9	0.5286	1.49	09/09/2024	
Molybdenum		0.0015		<b>0.463</b>	0.5000	0	92.5	0.4465	3.54	09/09/2024	
Selenium		0.0010		<b>0.486</b>	0.5000	0	97.3	0.4765	2.08	09/09/2024	
Thallium		0.0020		<b>0.233</b>	0.2500	0	93.2	0.2357	1.13	09/09/2024	

Batch 228042		SampType: MS		Units mg/L							
SampID: 24090253-001AMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Selenium		0.0010		<b>0.493</b>	0.5000	0.006771	97.3	70	130	09/10/2024	

Batch 228042		SampType: MSD		Units mg/L				RPD Limit 20			
SampID: 24090253-001AMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Selenium		0.0010		<b>0.496</b>	0.5000	0.006771	97.9	0.4934	0.56	09/10/2024	

Batch 228074		SampType: MBLK		Units mg/L							
SampID: MBLK-228074											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Antimony		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	09/10/2024	
Arsenic		0.0010		< <b>0.0010</b>	0.0004	0	0	-100	100	09/09/2024	
Beryllium		0.0010		< <b>0.0010</b>	0.0002	0	0	-100	100	09/09/2024	
Cadmium		0.0010		< <b>0.0010</b>	0.0001	0	0	-100	100	09/09/2024	
Chromium		0.0015		< <b>0.0015</b>	0.0007	0	0	-100	100	09/09/2024	
Cobalt		0.0010		< <b>0.0010</b>	0.0001	0	0	-100	100	09/09/2024	
Lead		0.0010		< <b>0.0010</b>	0.0006	0	0	-100	100	09/09/2024	
Lithium	*	0.0030		< <b>0.0030</b>	0.0015	0	0	-100	100	09/09/2024	
Molybdenum		0.0015		< <b>0.0015</b>	0.0006	0	0	-100	100	09/09/2024	
Selenium		0.0010		< <b>0.0010</b>	0.0006	0	0	-100	100	09/09/2024	
Thallium		0.0020		< <b>0.0020</b>	0.0010	0	0	-100	100	09/09/2024	



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

**Batch 228074**      **SampType:** LCS      **Units** mg/L

SampID: LCS-228074

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.546</b>	0.5000	0	109.1	80	120	09/10/2024
Arsenic		0.0010		<b>0.515</b>	0.5000	0	103.0	85	115	09/09/2024
Beryllium		0.0010		<b>0.0472</b>	0.0500	0	94.5	85	115	09/09/2024
Cadmium		0.0010		<b>0.0486</b>	0.0500	0	97.2	85	115	09/09/2024
Chromium		0.0015		<b>0.202</b>	0.2000	0	100.8	85	115	09/09/2024
Cobalt		0.0010		<b>0.516</b>	0.5000	0	103.3	85	115	09/09/2024
Lead		0.0010		<b>0.489</b>	0.5000	0	97.7	85	115	09/09/2024
Lithium	*	0.0030		<b>0.476</b>	0.5000	0	95.2	85	115	09/09/2024
Molybdenum		0.0015		<b>0.469</b>	0.5000	0	93.9	85	115	09/09/2024
Selenium		0.0010		<b>0.500</b>	0.5000	0	100.0	85	115	09/09/2024
Thallium		0.0020		<b>0.232</b>	0.2500	0	93.0	85	115	09/09/2024

**Batch 228074**      **SampType:** MS      **Units** mg/L

SampID: 24080520-009CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		0.0010		<b>0.549</b>	0.5000	0	109.7	75	125	09/10/2024
Arsenic		0.0010		<b>0.514</b>	0.5000	0	102.7	75	125	09/09/2024
Beryllium		0.0010		<b>0.0494</b>	0.0500	0	98.9	75	125	09/09/2024
Cadmium		0.0010		<b>0.0493</b>	0.0500	0	98.5	75	125	09/09/2024
Chromium		0.0015		<b>0.203</b>	0.2000	0.002247	100.5	75	125	09/09/2024
Cobalt		0.0010		<b>0.518</b>	0.5000	0	103.7	75	125	09/09/2024
Lead		0.0010		<b>0.489</b>	0.5000	0	97.8	75	125	09/09/2024
Lithium	*	0.0030		<b>0.484</b>	0.5000	0	96.8	75	125	09/09/2024
Molybdenum		0.0015		<b>0.469</b>	0.5000	0	93.8	75	125	09/09/2024
Selenium		0.0010		<b>0.493</b>	0.5000	0	98.5	75	125	09/09/2024
Thallium		0.0020		<b>0.236</b>	0.2500	0	94.5	75	125	09/09/2024



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

### SW-846 3005A, 6020A, METALS BY ICPMS (TOTAL)

Batch 228074		SampType: MSD		Units mg/L				RPD Limit 20			Date Analyzed
SampID: 24080520-009CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Antimony		0.0010		<b>0.546</b>	0.5000	0	109.2	0.5486	0.47	09/10/2024	
Arsenic		0.0010		<b>0.524</b>	0.5000	0	104.8	0.5137	1.94	09/09/2024	
Beryllium		0.0010		<b>0.0498</b>	0.0500	0	99.5	0.04943	0.66	09/09/2024	
Cadmium		0.0010		<b>0.0498</b>	0.0500	0	99.7	0.04927	1.14	09/09/2024	
Chromium		0.0015		<b>0.204</b>	0.2000	0.002247	100.9	0.2032	0.41	09/09/2024	
Cobalt		0.0010		<b>0.528</b>	0.5000	0	105.6	0.5184	1.80	09/09/2024	
Lead		0.0010		<b>0.494</b>	0.5000	0	98.8	0.4892	0.96	09/09/2024	
Lithium	*	0.0030		<b>0.497</b>	0.5000	0	99.3	0.4841	2.58	09/09/2024	
Molybdenum		0.0015		<b>0.475</b>	0.5000	0	94.9	0.4689	1.21	09/09/2024	
Selenium		0.0010		<b>0.504</b>	0.5000	0	100.9	0.4925	2.35	09/09/2024	
Thallium		0.0020		<b>0.234</b>	0.2500	0	93.7	0.2363	0.82	09/09/2024	

### SW-846 7470A (TOTAL)

Batch 227990		SampType: MBLK		Units mg/L							Date Analyzed
SampID: MBLK-227990											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>&lt; 0.00020</b>	0.0001	0	0	-100	100	09/05/2024	

Batch 227990		SampType: LCS		Units mg/L							Date Analyzed
SampID: LCS-227990											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00495</b>	0.0050	0	99.0	85	115	09/05/2024	

Batch 227990		SampType: MS		Units mg/L							Date Analyzed
SampID: 24090192-002BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		<b>0.00490</b>	0.0050	0	98.0	75	125	09/05/2024	

Batch 227990		SampType: MSD		Units mg/L				RPD Limit 15			Date Analyzed
SampID: 24090192-002BMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		<b>0.00485</b>	0.0050	0	97.1	0.004898	0.89	09/05/2024	



## Quality Control Results

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**Client:** Southern Illinois Power Cooperation

**Work Order:** 24080520

**Client Project:** Groundwater Monitoring

**Report Date:** 09-Oct-24

**SW-846 7470A (TOTAL)**

Batch 228093		SampType: MBLK		Units mg/L							
SampID: MBLK-228093											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		< 0.00020	0.0001	0	0	-100	100	09/09/2024	

Batch 228093		SampType: LCS		Units mg/L							
SampID: LCS-228093											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00498	0.0050	0	99.6	85	115	09/09/2024	

Batch 228093		SampType: MS		Units mg/L							
SampID: 24080520-005CMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Mercury		0.00020		0.00421	0.0050	0	84.3	75	125	09/09/2024	

Batch 228093		SampType: MSD		Units mg/L							
SampID: 24080520-005CMSD											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed	
Mercury		0.00020		0.00422	0.0050	0	84.4	0.004213	0.20	09/09/2024	



# Receiving Check List

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 24080520

Client Project: Groundwater Monitoring

Report Date: 09-Oct-24

Carrier: Tracy Carroll

Received By: PRS

Completed by:

*Amber Dilallo*

Reviewed by:

*Elizabeth A. Hurley*

On:

05-Sep-24

Amber Dilallo

On:

05-Sep-24

Elizabeth A. Hurley

Pages to follow: Chain of custody

Extra pages included

- Shipping container/cooler in good condition? Yes  No  Not Present  Temp °C **10.3**
- Type of thermal preservation? None  Ice  Blue Ice  Dry Ice
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Reported field parameters measured: Field  Lab  NA
- Container/Temp Blank temperature in compliance? Yes  No

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- Water – at least one vial per sample has zero headspace? Yes  No  No VOA vials
- Water - TOX containers have zero headspace? Yes  No  No TOX containers
- Water - pH acceptable upon receipt? Yes  No  NA
- NPDES/CWA TCN interferences checked/treated in the field? Yes  No  NA

**Any No responses must be detailed below or on the COC.**

Samples were received on 9/4/24 at 1723 on ice [10.3C - LTG#5]. pH strip #96651. - PS/amberdilallo - 9/5/2024 8:04:56 AM

Samples were received on 9/5/24 at 1557 on ice [10.7C - LTG#5]. pH strip #96651. - PS/amberdilallo - 9/5/2024 4:09:25 PM

# CHAIN OF CUSTODY

pg. 1 of 2 Work order # 24080520

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

**Client:** Southern Illinois Power Cooperation  
**Address:** 11543 Lake of Egypt Road  
**City / State / Zip:** Marion, IL 62959  
**Contact:** Jason McLaurin **Phone:** (618) 964-1448  
**E-Mail:** jmclaurin@sipower.org **Fax:** \_\_\_\_\_

**Samples on:**  ICE  BLUE ICE  NO ICE 10.3 °C **LTG#** 5  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:** *PH/9/15/15  
PS 9/5*

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Ti  
 Field Parameters = Elevations, Purge Volume, pH, Conductivity, Temperature, DO, ORP, and Turbidity

**Project Name/Number:** Groundwater Monitoring  
**Sample Collector's Name:** Justin Gop

**Results Requested:**  Standard  1-2 Day (100% Surcharge)  
 Other \_\_\_\_\_  3 Day (50% Surcharge)  
**Billing Instructions:** \_\_\_\_\_  
**# and Type of Containers:**

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers																	
			UNP	HNO3																
24080520-001	EBG	9-4-24 / 1203	1	3																
002	EP-1	9-4-24 / 1256	1	3																
003	EP-2	9-4-24 / 1234	1	3																
004	EP-3		1	3																
005	EP-4		1	3																
006	EP-5	9-4-24 / 1345	1	3																
007	EP-6	9-4-24 / 1521	1	3																
008	EP-7		1	3																
009	Equipment Blank		1	3																
010	Field Blank		1	3																

MATRIX		INDICATE ANALYSIS REQUESTED																		
Groundwater	Aqueous	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS										
											X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X										
X	X	X	X	X	X	X	X	X	X	X										
X	X	X	X	X	X	X	X	X	X	X										
X	X	X	X	X	X	X	X	X	X	X										
X	X	X	X	X	X	X	X	X	X	X										
X	X	X	X	X	X	X	X	X	X	X										

**Relinquished By:** *Justin Gop* **Date/Time:** 9-4-24 1723

**Received By:** *Paul [Signature]* **Date/Time:** 9/4/24 1723







# CHAIN OF CUSTODY

pg. 2 of 2 Work order # 24080520

**TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005**

**Client:** Southern Illinois Power Cooperation  
**Address:** 11543 Lake of Egypt Road  
**City / State / Zip:** Marion, IL 62959  
**Contact:** Jason McLaurin **Phone:** (618) 964-1448  
**E-Mail:** jmclaurin@sipower.org **Fax:**

**Samples on:**  ICE  BLUE ICE  NO ICE \_\_\_\_\_ °C **LTG#** \_\_\_\_\_  
**Preserved in:**  LAB  FIELD **FOR LAB USE ONLY**  
**Lab Notes:**

Are these samples known to be involved in litigation? If yes, a surcharge will apply  Yes  No  
 Are these samples known to be hazardous? If yes, include details of the hazard.  Yes  No  
 Are there any required reporting limits to be met on the requested analysis? If yes, please provide limits in the comment section.  Yes  No

**Client Comments**  
 ICP: Ba B Ca  
 ICP/MS: Sb As Be Cd Cr Co Pb Li Mo Se Ti  
 Field Parameters = Elevations, Purge Volume, pH, Conductivity, Temperature, DO, ORP, and Turbidity

**Project Name/Number:** Groundwater Monitoring  
**Sample Collector's Name:**

**Results Requested:**  Standard  1-2 Day (100% Surcharge)  
 Other \_\_\_\_\_  3 Day (50% Surcharge)  
**Billing Instructions:**  
**# and Type of Containers:**

Lab Use Only	Sample Identification	Date/Time Sampled	# and Type of Containers		INDICATE ANALYSIS REQUESTED														
			UNP	HNO3	Aqueous	Groundwater	Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Ra226/228	Sulfate	TDS				
24080520-011	Field Duplicate		1	3	X		X	X	X	X	X	X	X	X	X				

**Relinquished By:** *Jenny Carroll* **Date/Time:** 9.5.24 1557

**Received By:** *Spencer O'Connell* **Date/Time:** 9/5/24 1557

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.teklabinc.com for terms and conditions.

BottleOrder: 92248





Summit Environmental Technologies, Inc.  
3310 Win St.  
Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

October 08, 2024

Elizabeth Hurley  
TEKLAB Inc,  
5445 Horseshoe lake Road  
Collinsville, IL 62234  
TEL:  
FAX:

RE: 24080520

Dear Elizabeth Hurley:

Order No.: 24090490

Summit Environmental Technologies, Inc. received 11 sample(s) on 9/9/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf  
Project Manager  
3310 Win St.  
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



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## Case Narrative

WO#: 24090490  
Date: 10/8/2024

---

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520

---

### WorkOrder Narrative:

24090490: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

---

Original

These commonly used Qualifiers and Acronyms may or may not be present in this report.

### Qualifiers

<b>U</b>	The compound was analyzed for but was not detected above the MDL.
<b>J</b>	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
<b>H</b>	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
<b>D</b>	The result is reported from a dilution.
<b>E</b>	The result exceeded the linear range of the calibration or is estimated due to interference.
<b>MC</b>	The result is below the Minimum Compound Limit.
<b>*</b>	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
<b>m</b>	Manual integration was used to determine the area response.
<b>d</b>	Manual integration in which peak was deleted
<b>N</b>	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
<b>P</b>	The second column confirmation exceeded 25% difference.
<b>C</b>	The result has been confirmed by GC/MS.
<b>X</b>	The result was not confirmed when GC/MS Analysis was performed.
<b>B</b>	The analyte was detected in the Method Blank at a concentration greater than the RL.
<b>MB+</b>	The analyte was detected in the Method Blank at a concentration greater than the MDL.
<b>G</b>	The ICB or CCB contained reportable amounts of analyte.
<b>QC-/+</b>	The CCV recovery failed low (-) or high (+).
<b>R/QDR</b>	The RPD was outside of accepted recovery limits.
<b>QL-/+</b>	The LCS or LCSD recovery failed low (-) or high (+).
<b>QLR</b>	The LCS/LCSD RPD was outside of accepted recovery limits.
<b>QM-/+</b>	The MS or MSD recovery failed low (-) or high (+).
<b>QMR</b>	The MS/MSD RPD was outside of accepted recovery limits.
<b>QV-/+</b>	The ICV recovery failed low (-) or high (+).
<b>S</b>	The spike result was outside of accepted recovery limits.
<b>W</b>	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
<b>Z</b>	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

### Acronyms

<b>ND</b>	Not Detected	<b>RL</b>	Reporting Limit
<b>QC</b>	Quality Control	<b>MDL</b>	Method Detection Limit
<b>MB</b>	Method Blank	<b>LOD</b>	Level of Detection
<b>LCS</b>	Laboratory Control Sample	<b>LOQ</b>	Level of Quantitation
<b>LCSD</b>	Laboratory Control Sample Duplicate	<b>PQL</b>	Practical Quantitation Limit
<b>QCS</b>	Quality Control Sample	<b>CRQL</b>	Contract Required Quantitation Limit
<b>DUP</b>	Duplicate	<b>PL</b>	Permit Limit
<b>MS</b>	Matrix Spike	<b>RegLvl</b>	Regulatory Limit
<b>MSD</b>	Matrix Spike Duplicate	<b>MCL</b>	Maximum Contamination Limit
<b>RPD</b>	Relative Percent Different	<b>MinCL</b>	Minimum Compound Limit
<b>ICV</b>	Initial Calibration Verification	<b>RA</b>	Reanalysis
<b>ICB</b>	Initial Calibration Blank	<b>RE</b>	Reextraction
<b>CCV</b>	Continuing Calibration Verification	<b>TIC</b>	Tentatively Identified Compound
<b>CCB</b>	Continuing Calibration Blank	<b>RT</b>	Retention Time
<b>RLC</b>	Reporting Limit Check	<b>CF</b>	Calibration Factor

**This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.**





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 Website: <http://www.settek.com>

## Workorder Sample Summary

WO#: **24090490**  
**08-Oct-24**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24090490-001	24080520-001		9/4/2024 12:03:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-002	24080520-002		9/4/2024 12:56:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-003	24080520-003		9/4/2024 12:34:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-004	24080520-004		9/5/2024 12:37:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-005	24080520-005		9/5/2024 1:35:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-006	24080520-006		9/4/2024 1:45:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-007	24080520-007		9/4/2024 3:21:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-008	24080520-008		9/5/2024 11:35:00 AM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-009	24080520-009		9/5/2024 1:48:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-010	24080520-010		9/5/2024 11:10:00 AM	9/9/2024 1:30:00 PM	Non-Potable Water
24090490-011	24080520-011		9/4/2024 12:03:00 PM	9/9/2024 1:30:00 PM	Non-Potable Water



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# DATES REPORT

WO#: **24090490**  
**08-Oct-24**

**Client:** TEKLAB Inc,  
**Project:** 24080520

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24090490-001A	24080520-001	9/4/2024 12:03:00 PM	Non-Potable Water	Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-002A	24080520-002	9/4/2024 12:56:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-003A	24080520-003	9/4/2024 12:34:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-004A	24080520-004	9/5/2024 12:37:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-005A	24080520-005	9/5/2024 1:35:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-006A	24080520-006	9/4/2024 1:45:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-007A	24080520-007	9/4/2024 3:21:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-008A	24080520-008	9/5/2024 11:35:00 AM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM

Original



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# DATES REPORT

WO#: 24090490  
 08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24090490-008A	24080520-008	9/5/2024 11:35:00 AM	Non-Potable Water	Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-009A	24080520-009	9/5/2024 1:48:00 PM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-010A	24080520-010	9/5/2024 11:10:00 AM		Combined Radium (EPA903+904)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-226 (EPA 903.0)		9/25/2024 1:29:35 PM	10/1/2024 10:53:00 AM
				Radium-228 (EPA 904.0)		9/25/2024 1:29:35 PM	9/30/2024 3:41:00 PM
24090490-011A	24080520-011	9/4/2024 12:03:00 PM		Combined Radium (EPA903+904)		10/3/2024 12:12:01 PM	10/8/2024 10:25:08 AM
				Radium-226 (EPA 903.0)		10/3/2024 12:12:01 PM	10/8/2024 10:25:08 AM
				Radium-228 (EPA 904.0)		10/3/2024 12:12:01 PM	10/7/2024 2:14:55 PM

Original



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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-001  
**Client Sample ID:** 24080520-001

**Collection Date:** 9/4/2024 12:03:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.76	2.00	U	pCi/L	± 0.440	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.04	1.00	U	pCi/L	± 0.0500	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.72	1.00	J	pCi/L	± 0.390	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-002  
**Client Sample ID:** 24080520-002

**Collection Date:** 9/4/2024 12:56:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.45	2.00	U	pCi/L	± 0.390	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	-0.04	1.00	U	pCi/L	± 0.0500	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.45	1.00	U	pCi/L	± 0.340	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-003  
**Client Sample ID:** 24080520-003

**Collection Date:** 9/4/2024 12:34:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.81	2.00	U	pCi/L	± 0.590	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.37	1.00	U	pCi/L	± 0.110	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	1.44	1.00		pCi/L	± 0.480	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-004  
**Client Sample ID:** 24080520-004

**Collection Date:** 9/5/2024 12:37:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.48	2.00	U	pCi/L	± 0.550	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.1	1.00	U	pCi/L	± 0.0700	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	1.38	1.00		pCi/L	± 0.480	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-005  
**Client Sample ID:** 24080520-005

**Collection Date:** 9/5/2024 1:35:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.54	2.00	U	pCi/L	± 0.460	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.14	1.00	U	pCi/L	± 0.0800	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.4	1.00	U	pCi/L	± 0.380	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-006  
**Client Sample ID:** 24080520-006

**Collection Date:** 9/4/2024 1:45:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.71	2.00	U	pCi/L	± 0.430	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.09	1.00	U	pCi/L	± 0.0600	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.62	1.00	U	pCi/L	± 0.370	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-007  
**Client Sample ID:** 24080520-007

**Collection Date:** 9/4/2024 3:21:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.58	2.00	U	pCi/L	± 0.390	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.07	1.00	U	pCi/L	± 0.0500	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.51	1.00	U	pCi/L	± 0.340	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-008  
**Client Sample ID:** 24080520-008

**Collection Date:** 9/5/2024 11:35:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.15	2.00	U	pCi/L	± 0.480	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0.18	1.00	U	pCi/L	± 0.0800	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.97	1.00	J	pCi/L	± 0.400	1	9/30/2024 3:41:00 PM
Yield	1					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-009  
**Client Sample ID:** 24080520-009

**Collection Date:** 9/5/2024 1:48:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	0.77	2.00	U	pCi/L	± 0.480	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	-0.04	1.00	U	pCi/L	± 0.0500	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	0.77	1.00	J	pCi/L	± 0.430	1	9/30/2024 3:41:00 PM
Yield	0.94					1	9/30/2024 3:41:00 PM

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
ND	Not Detected	PL	Permit Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original





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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-010  
**Client Sample ID:** 24080520-010

**Collection Date:** 9/5/2024 11:10:00 AM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>DHF</b>	
Radium-226/Radium-228	1.34	2.00	U	pCi/L	± 0.520	1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-226	0	1.00	U	pCi/L	± 0.0400	1	10/1/2024 10:53:00 AM
Yield	1					1	10/1/2024 10:53:00 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>DHF</b>	
Radium-228	1.34	1.00		pCi/L	± 0.480	1	9/30/2024 3:41:00 PM
Yield	0.9					1	9/30/2024 3:41:00 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test

Original



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# Analytical Report

(consolidated)

WO#: **24090490**

Date Reported: **10/8/2024**

**CLIENT:** TEKLAB Inc,  
**Project:** 24080520  
**Lab ID:** 24090490-011  
**Client Sample ID:** 24080520-011

**Collection Date:** 9/4/2024 12:03:00 PM

**Matrix:** NON-POTABLE WATER

Analyses	Result	RL	Qual	Units	Uncertainty	DF	Date Analyzed
<b>RAD226/228 COMBINED RADIUM (EPA903+904)</b>				<b>CALCULATION E903-904</b>		Analyst: <b>SMZ</b>	
Radium-226/Radium-228	0.78	2.00	U	pCi/L	± 0.410	1	10/8/2024 10:25:08 AM
<b>RAD226/228 RADIUM-226 (EPA 903.0)</b>				<b>E903.0 E903-904</b>		Analyst: <b>SMZ</b>	
Radium-226	0.04	1.00	U	pCi/L	± 0.0400	1	10/8/2024 10:25:08 AM
Yield	1					1	10/8/2024 10:25:08 AM
<b>RAD226/228 RADIUM-228 (EPA 904.0)</b>				<b>E904.0 E903-904</b>		Analyst: <b>SMZ</b>	
Radium-228	0.740	1.00	J	pCi/L	± 0.370	1	10/7/2024 2:14:55 PM
Yield	1.00					1	10/7/2024 2:14:55 PM

<b>Qualifiers:</b>	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as specified at test



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## QC SUMMARY REPORT

WO#: 24090490

08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 78862

Sample ID: <b>MB-78862</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194298</b>						
Client ID: <b>PBW</b>	Batch ID: <b>78862</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>9/30/2024</b>	SeqNo: <b>5258811</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: <b>LCS-78862</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194298</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>78862</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>9/30/2024</b>	SeqNo: <b>5258812</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.30	1.00	5.000	0	66.0	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-78862</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194298</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>78862</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>9/30/2024</b>	SeqNo: <b>5258813</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	2.73	1.00	5.000	0	54.6	50	130	3.300	18.9	20	
Yield	0.970			0	0			1.000	3.05		

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: **24090490**  
 08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 78862

Sample ID: <b>24090452-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194298</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>78862</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>9/30/2024</b>	SeqNo: <b>5258818</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0.9500	200	20	RU
Yield	1.00			0	0			1.000	0		

Sample ID: <b>24090452-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194298</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>78862</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>9/30/2024</b>	SeqNo: <b>5258820</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	0.900	1.00		0	0			0	200	20	JR
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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# QC SUMMARY REPORT

WO#: 24090490

08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 78862

Sample ID: <b>MB-78862</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194301</b>						
Client ID: <b>PBW</b>	Batch ID: <b>78862</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/1/2024</b>	SeqNo: <b>5258897</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: <b>LCS-78862</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194301</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>78862</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/1/2024</b>	SeqNo: <b>5258898</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.00	1.00	5.000	0	100	70	130				

Sample ID: <b>LCSD-78862</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194301</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>78862</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/1/2024</b>	SeqNo: <b>5258899</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	5.44	1.00	5.000	0	109	70	130	5.000	8.43	20	

Sample ID: <b>24090452-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194301</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>78862</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/1/2024</b>	SeqNo: <b>5268619</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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 Website: <http://www.settek.com>

## QC SUMMARY REPORT

WO#: **24090490**  
**08-Oct-24**

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 78862

Sample ID: <b>24090452-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>9/25/2024</b>	RunNo: <b>194301</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>78862</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/1/2024</b>	SeqNo: <b>5268619</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
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M Manual Integration used to determine area respons  
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## QC SUMMARY REPORT

WO#: 24090490

08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 79103

Sample ID: <b>MB-79103</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194688</b>						
Client ID: <b>PBW</b>	Batch ID: <b>79103</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>10/7/2024</b>	SeqNo: <b>5269455</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0						U
Yield	1.00			0	0						

Sample ID: <b>LCS-79103</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194688</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>79103</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>10/7/2024</b>	SeqNo: <b>5269456</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.35	1.00	5.000	0	67.0	50	130				
Yield	1.00			0	0						

Sample ID: <b>LCSD-79103</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194688</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>79103</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>10/7/2024</b>	SeqNo: <b>5269457</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	3.33	1.00	5.000	0	66.6	50	130	3.350	0.599	20	
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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## QC SUMMARY REPORT

WO#: 24090490

08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 79103

Sample ID: <b>24090543-002ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194688</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>79103</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>10/7/2024</b>	SeqNo: <b>5269462</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	U
Yield	1.00			0	0			1.000	0		

Sample ID: <b>24090605-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-228_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194688</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>79103</b>	TestNo: <b>E904.0</b>	<b>E903-904</b>	Analysis Date: <b>10/7/2024</b>	SeqNo: <b>5269464</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-228	ND	1.00		0	0			0	0	20	U
Yield	1.00			0	0			1.000	0		

**Qualifiers:**  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit

J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL

M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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# QC SUMMARY REPORT

WO#: 24090490

08-Oct-24

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 79103

Sample ID: <b>MB-79103</b>	SampType: <b>MBLK</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194694</b>						
Client ID: <b>PBW</b>	Batch ID: <b>79103</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/8/2024</b>	SeqNo: <b>5269549</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00									U
Yield	1.00										

Sample ID: <b>LCS-79103</b>	SampType: <b>LCS</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194694</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>79103</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/8/2024</b>	SeqNo: <b>5269550</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.80	1.00	5.000	0	96.0	70	130				

Sample ID: <b>LCSD-79103</b>	SampType: <b>LCSD</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194694</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>79103</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/8/2024</b>	SeqNo: <b>5269551</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	4.60	1.00	5.000	0	92.0	70	130	4.800	4.26	20	

Sample ID: <b>24090605-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194694</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>79103</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/8/2024</b>	SeqNo: <b>5269556</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 ND Not Detected  
 RL Reporting Detection Limit  
 J Analyte detected below quantitation limits  
 PL Permit Limit  
 U Samples with CalcVal < MDL  
 M Manual Integration used to determine area respons  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as spec



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# QC SUMMARY REPORT

WO#: **24090490**  
**08-Oct-24**

**Client:** TEKLAB Inc,  
**Project:** 24080520

**BatchID:** 79103

Sample ID: <b>24090605-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>Radium-226_</b>	Units: <b>pCi/L</b>	Prep Date: <b>10/3/2024</b>	RunNo: <b>194694</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>79103</b>	TestNo: <b>E903.0</b>	<b>E903-904</b>	Analysis Date: <b>10/8/2024</b>	SeqNo: <b>5269556</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Radium-226	ND	1.00						0	0	20	U
Yield	1.00							1.000	0	0	

**Qualifiers:**

H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	U	Samples with CalcVal < MDL	W	Sample container temperature is out of limit as spec

24090490

### TEKLAB, INC. Chain of Custody

5445 Horseshoe Lake Road, Collinsville, IL 62234 Phone (618) 344-1004 Fax (618) 344-1005

Are the samples chilled? YES  NO  With:  Ice  Blue Ice Preserved in:  Lab  Field

Teklab Inc  
5445 Horseshoe Lake Road  
Collinsville, IL 62234

Cooler Temp:  Sampler:  QC Level:

Project#

Comments:   
Please analyze for Ra226, Ra228 and Combined Radium per your usual methods.  
Changes to analysis/methods must be approved by Teklab, Inc. Batch QC is required.  
Samples collected from an IL site.

Contact:  Email:   
Requested Due Date:  Billing/PO:

Phone:

**PLEASE NOTE:**

NELAP accreditation is required on the requested analytes and must be documented as such on the final report. If your laboratory does not currently hold a NELAP accreditation for the requested method and/or analytes, please contact Teklab immediately. If your laboratory loses accreditation or is suspended for any analyte/method during the life of the contract, you must contact Teklab immediately.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	Radium 226/228	Radium 226	Radium 228	pH	CPM								
	24080520-001	9/4/2024 12:03:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	18,22								
	24080520-002	9/4/2024 12:56:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	11,37								
	24080520-003	9/4/2023 12:34:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	30,21								
	24080520-004	9/5/2024 12:37:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	26,33								
	24080520-005	9/5/2024 1:35:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	4,12								
	24080520-006	9/4/2024 1:45:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	30,26								
	24080520-007	9/4/2024 3:21:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	20,15								
	24080520-008	9/5/2024 11:35:00 AM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	35,41								
	24080520-009	9/5/2024 1:48:00 PM	HNO3	Aqueous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	22,37								
	24080520-010	9/5/2024 11:10:00 AM	HNO3	Aqueous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	28,22								
	24080520-011	9/4/2024 12:03:00 PM	HNO3	Groundwater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	30,41								

*Relinquished By	Date/Time	Received By	Date/Time
<i>Imber Dela...</i>	9/4/24 1700		
		<i>C Stefan Fedex 184-0-18.6</i>	9/9/24 1330

# Sample Log-In Check List

Client Name: TEK-IL-62234-A

Work Order Number: 24090490

RcptNo: 1

Logged by:	Christopher Stefan	9/9/2024 1:30:00 PM	<i>Christopher Stefan</i>
Completed By:	Spencer M. Hartwell	9/10/2024 11:56:21 AM	<i>Spencer M. Hartwell</i>
Reviewed By:	Jennifer Woolf	9/10/2024 12:00:06 PM	<i>Jennifer M. Woolf</i>

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? FedEx

**Log In**

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
Not required  
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

**Special Handling (if applicable)**

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	18.6	Good	Not Present			



**APPENDIX C**

# 2024 Data Usability Assessment Reports

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Project Name:** SIPC Groundwater Monitoring

**Project Number:** GL21467997.002

**Reviewing Company:** WSP USA

**Project Manager:** Danielle Sylvia Cofelice

**Data Evaluator:** Gabriel Dixon

**Data Evaluation Date:** February 1, 2024

**Checked by:** Danielle Sylvia Cofelice

**Review Date:** February 8, 2024

**Laboratory:** : Teklab, Inc., Summit Environmental Technologies, Inc.

**Lab Job #:** 23120001

**Matrix:**  Aqueous  Soil  Sediment  Waste  Air  Other:

**Analytical Methods:** Total dissolved solids by SM 2540C; chloride by 4500-CL E; sulfate by SW-846 9036; fluoride by SW-846 9214; total metals by SW-846 3005A, 6010B and 6020A; mercury by SW-846 7470A; Radium226/228 by EPA 903.0/904.0

**Sample Information:** See Table 1.

**Data Qualification:** No qualifications required.

**Work Plan or QAPP reference:** None

**Data Validation Guidance:** EPA Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)

<b>Chain of Custody (COC) and Sample Receipt</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) COC complete and correct? (Project location, contacts, sample IDs, sample dates, field QC samples, analyses identified, et c.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) COC documents release of custody (signed and dated)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Field QC types provided (note types)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EB, FB, FD
d) Did the cooler contents match the COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were samples received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f) Were cooler temperatures within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Data Package Information</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Laboratory name and location documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) All samples on COC reported in data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Requested analytical methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Requested analyte list reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Requested units reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Did the laboratory define the qualifiers used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g) Data package contains all information necessary to complete the data quality review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Solid samples reported on a dry-weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were solid samples percent moisture criteria acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Were sample dilutions noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Analytical Assessment** **YES NO NA** **COMMENT**

- d) Were detected concentrations less than the QL qualified by the laboratory?
- e) All detected sample results within the calibrated range?
- f) Did the laboratory satisfy the requested sensitivity requirements?

**Laboratory Case Narrative** **YES NO NA** **COMMENT**

- a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?

**Sample Preservation and Holding Time** **YES NO NA** **COMMENT**

- a) Were samples properly preserved?    See Note 1
- b) Were holding times met for sample preparation and/or extraction?
- c) Were holding times met for sample analysis?

**Blanks** **YES NO NA** **COMMENTS**

- a) No analytes detected in the associated preparation/method blank(s)?
- b) No analytes detected in the associated trip blank(s)?
- c) No analytes detected in the associated field or equipment/rinsate blank(s)?    See Note 2

**Duplicates** **YES NO NA** **COMMENTS**

- a) Were field duplicates reported?
- b) Was field duplicate RPD or absolute difference criteria acceptable?    See Note 3

**Overall Evaluation** **YES NO NA** **COMMENTS**

- a) No other technical problems that lead to data rejection identified by laboratory?
- b) Were data acceptable and usable, except where noted?

**Comments/Notes:**

- 1) The laboratory receiving checklist indicates that sample EP-3 was received with a pH not within quality control limits. Laboratory staff added additional nitric acid to bring pH within acceptable limits. No further action was required.
- 2) Analytes were detected in an equipment blank, as shown in the table below. Equipment and field blanks are compared to primary samples collected on the same day. Associated detected results are considered potentially biased high.

Sample Name	Parameter	Analyte	Blank Result	RL/MDC	Units
Equipment Blank	Anions	Chloride	1 J	4	mg/L
Equipment Blank	Anions	Fluoride	0.05 J	0.10	mg/L
Equipment Blank	Metals	Calcium	0.063 J	0.10	mg/L

3. Field duplicate RPDs did not meet acceptance criteria. Reporting limits were used to calculate RPDs for non-detect results. Using professional judgment, RPDs were first calculated, and analytes with RPDs above 30% were evaluated.

## QA LEVEL I - DATA VERIFICATION CHECKLIST

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Using professional judgement for inorganics, when the results are less than 5x the reporting limit and the absolute difference between the results is less than the reporting limit, no bias is suspected.

Primary Sample Name	Parameter	Analyte	Primary Sample Result	Duplicate Sample Result	RL/MDA Primary Sample	RL/MDA Duplicate Sample	Unit	RPD (%)
EBG	Metals	Cobalt	0.0002 J	0.0003 J	0.0010	0.0010	mg/L	40
EBG	Metals	Molybdenum	0.0010 J	0.0015 J	0.0015	0.0015	mg/L	40
EBG	Radium	Radium-228	3.21	1.00 U	1.00	1.00	pCi/L	105
EBG	Radium	Combined Radium	3.27	2.00 U	2.00	2.00	pCi/L	48.2

**TABLE 1**  
**Sample Collection and Analysis Summary**  
**SIPC CCR Groundwater Monitoring**

Lab ID	Field Identification	Collection Date	Location	Matrix	QC Samples								
						Chloride	Field Parameters	Fluoride	ICP Metals	Mercury	Radium-226/228	Sulfate	TDS
23120001-001	EBG	12/11/2023	EBG	GW	-	X	X	X	X	X	X	X	X
23120001-002	EP-1	12/11/2023	EP-1	GW	-	X	X	X	X	X	X	X	X
23120001-003	EP-2	12/12/2023	EP-2	GW	-	X	X	X	X	X	X	X	X
23120001-004	EP-3	12/12/2023	EP-3	GW	-	X	X	X	X	X	X	X	X
23120001-005	EP-4	12/12/2023	EP-4	GW	-	X	X	X	X	X	X	X	X
23120001-006	EP-5	12/11/2023	EP-5	GW	-	X	X	X	X	X	X	X	X
23120001-007	EP-6	12/11/2023	EP-6	GW	-	X	X	X	X	X	X	X	X
23120001-008	EP-7	12/12/2023	EP-7	GW	-	X	X	X	X	X	X	X	X
23120001-009	Equipment Blank	12/12/2023	-	WQ	EB	X	-	X	X	X	X	X	X
23120001-010	Field Blank	12/12/2023	-	WQ	FB	X	-	X	X	X	X	X	X
23120001-011	Field Duplicate	12/11/2023	EBG	GW	FD	X	X	X	X	X	X	X	X

**Notes:**

All analyses performed by Teklab in Collinsville, IL and Summit Environmental Technologies in Cuyahoga Falls, OH

**Abbreviations:**

- EB: Equipment Blank
- FB: Field Blank
- FD: Field Duplicate
- GW: Ground Water
- QC: Quality Control
- TDS: Total Dissolved Solids
- WQ: Water Quality

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Project Name:** SIPC Groundwater Monitoring

**Project Number:** GL21467997.002

**Reviewing Company:** WSP USA

**Project Manager:** Danielle Sylvia Cofelice

**Data Evaluator:** Candace Cocca

**Data Evaluation Date:** May 3, 2024

**Checked by:** Danielle Sylvia Cofelice

**Review Date:** May 10, 2024

**Laboratory:** Teklab, Inc., Summit Environmental Technologies, Inc.

**Lab Job #:** 24030002

**Matrix:**  Aqueous  Soil  Sediment  Waste  Air  Other:

**Analytical Methods:** Total dissolved solids by SM 2540C; chloride by 4500-CL E; sulfate by SW-846 9036; fluoride by SW-846 9214; total metals by SW-846 3005A, 6010B and 6020A; mercury by SW-846 7470A; Radium226/228 by EPA 903.0/904.0

**Sample Information:** See Table 1.

**Data Qualification:** No qualifications required.

**Work Plan or QAPP reference:** None

**Data Validation Guidance:** EPA Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)

<b>Chain of Custody (COC) and Sample Receipt</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) COC complete and correct? (Project location, contacts, sample IDs, sample dates, field QC samples, analyses identified, et c.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) COC documents release of custody (signed and dated)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Field QC types provided (note types)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EB, FB, FD
d) Did the cooler contents match the COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were samples received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f) Were cooler temperatures within control limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		See Note 1
<b>Data Package Information</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Laboratory name and location documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) All samples on COC reported in data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Requested analytical methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Requested analyte list reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Requested units reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Did the laboratory define the qualifiers used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g) Data package contains all information necessary to complete the data quality review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		See Note 2
<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Solid samples reported on a dry-weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were solid samples percent moisture criteria acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Were sample dilutions noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		



**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Analytical Assessment** **YES NO NA** **COMMENT**

- d) Were detected concentrations less than the QL qualified by the laboratory?
- e) All detected sample results within the calibrated range?
- f) Did the laboratory satisfy the requested sensitivity requirements?

**Laboratory Case Narrative** **YES NO NA** **COMMENT**

- a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?

**Sample Preservation and Holding Time** **YES NO NA** **COMMENT**

- a) Were samples properly preserved?    See Note 3
- b) Were holding times met for sample preparation and/or extraction?
- c) Were holding times met for sample analysis?

**Blanks** **YES NO NA** **COMMENTS**

- a) No analytes detected in the associated preparation/method blank(s)?    See Note 4
- b) No analytes detected in the associated trip blank(s)?
- c) No analytes detected in the associated field or equipment/rinsate blank(s)?    See Note 4

**Duplicates** **YES NO NA** **COMMENTS**

- a) Were field duplicates reported?
- b) Was field duplicate RPD or absolute difference criteria acceptable?    See Note 5

**Overall Evaluation** **YES NO NA** **COMMENTS**

- a) No other technical problems that lead to data rejection identified by laboratory?
- b) Were data acceptable and usable, except where noted?

**Comments/Notes:**

- 1) The cooler temperatures were outside QC limits ( $4 \pm 2^\circ\text{C}$ ) upon receipt to the laboratory ( $11.1^\circ\text{C}$  and  $6.5^\circ\text{C}$ ). Following Guidelines and using professional judgment, no qualifications were required as samples were submitted on ice to the laboratory on the same day as sample collection.
- 2) The laboratory receiving checklist indicates that sample EP-3 was received with a pH not within quality control limits. Laboratory staff added additional nitric acid to bring pH within acceptable limits. No further action was required.
- 3) Analytes were detected in method and equipment blanks, as shown in the table below. Equipment and field blanks are compared to primary samples collected on the same day. Associated detected results are considered potentially biased high.

Sample Name	Parameter	Analyte	Blank Result	RL/MDC	Units
MBLK-219890	Metals	Calcium	0.484	0.100	mg/L
Equipment Blank	TDS	Total Dissolved Solids	20	20	mg/L
Equipment Blank	Metals	Calcium	0.112 J	0.100	mg/L

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

- 4) Field duplicate RPDs did not meet acceptance criteria. Reporting limits were used to calculate RPDs for non-detect results. Using professional judgment, RPDs were first calculated, and analytes with RPDs above 30% were evaluated. Using professional judgement for inorganics, when the results are less than 5x the reporting limit and the absolute difference between the results is less than the reporting limit, no bias is suspected. When the results are less than 5x the reporting limit and the absolute difference between the results is greater than the reporting limit, associated detected results are considered potentially biased. When the results are greater than 5x the reporting limit and the RPD is greater than 30%, associated detected results are considered potentially biased.

Primary Sample Name	Parameter	Analyte	Primary Sample Result	Duplicate Sample Result	RL/MDA Primary Sample	RL/MDA Duplicate Sample	Unit	RPD (%)
EBG	Metals	Arsenic	0.0004 J	0.0006 J	0.0010	0.0010	mg/L	<b>40</b>
EBG	Metals	Cobalt	0.0002 J	0.0004 J	0.0010	0.0010	mg/L	<b>67</b>
EBG	Metals	Lithium	0.0265	0.0159	0.0030	0.0030	mg/L	<b>50.0</b>
EBG	Metals	Molybdenum	0.0016	0.0036	0.0015	0.0015	mg/L	<b>77</b>
EBG	Metals	Selenium	0.0006 J	0.0010 U	0.0010	0.0010	mg/L	<b>74</b>
EBG	Radium	Radium-228	0.69 J	1.00 U	1.00	1.00	pCi/L	<b>37</b>

**TABLE 1**  
**Sample Collection and Analysis Summary**  
**SIPC CCR Groundwater Monitoring**

Lab ID	Field Identification	Collection Date	Location	Matrix	QC Samples								
						Chloride	Field Parameters	Fluoride	ICP Metals	Mercury	Radium-226/228	Sulfate	TDS
24030002-001	EBG	3/12/2024	EBG	GW	-	X	X	X	X	X	X	X	X
24030002-002	EP-1	3/13/2024	EP-1	GW	-	X	X	X	X	X	X	X	X
24030002-003	EP-2	3/13/2024	EP-2	GW	-	X	X	X	X	X	X	X	X
24030002-004	EP-3	3/14/2024	EP-3	GW	-	X	X	X	X	X	X	X	X
24030002-005	EP-4	3/14/2024	EP-4	GW	-	X	X	X	X	X	X	X	X
24030002-006	EP-5	3/13/2024	EP-5	GW	-	X	X	X	X	X	X	X	X
24030002-007	EP-6	3/14/2024	EP-6	GW	-	X	X	X	X	X	X	X	X
24030002-008	EP-7	3/14/2024	EP-7	GW	-	X	X	X	X	X	X	X	X
24030002-009	Equipment Blank	3/14/2024	-	WQ	EB	X	-	X	X	X	X	X	X
24030002-010	Field Blank	3/14/2024	-	WQ	FB	X	-	X	X	X	X	X	X
24030002-011	Field Duplicate	3/12/2024	EBG	GW	FD	X	X	X	X	X	X	X	X

**Notes:**

All analyses performed by Teklab in Collinsville, IL and Summit Environmental Technologies in Cuyahoga Falls, OH

**Abbreviations:**

- EB: Equipment Blank
- FB: Field Blank
- FD: Field Duplicate
- GW: Ground Water
- QC: Quality Control
- TDS: Total Dissolved Solids
- WQ: Water Quality

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Project Name:** SIPC Groundwater Monitoring

**Project Number:** GL21467997.002

**Reviewing Company:** WSP USA

**Project Manager:** Danielle Sylvia Cofelice

**Data Evaluator:** Nathan Demers

**Data Evaluation Date:** July 11, 2024

**Checked by:** Danielle Sylvia Cofelice

**Review Date:** July 11, 2024

**Laboratory:** Teklab, Inc., Summit Environmental Technologies, Inc.

**Lab Job #:** 24051567

**Matrix:**  Aqueous  Soil  Sediment  Waste  Air  Other:

**Analytical Methods:** Total dissolved solids by SM 2540C; chloride by 4500-CL E; sulfate by SW-846 9036; fluoride by SW-846 9214; total metals by SW-846 3005A, 6010B and 6020A; mercury by SW-846 7470A; Radium226/228 by EPA 903.0/904.0

**Sample Information:** See Table 1.

**Data Qualification:** No qualifications required.

**Work Plan or QAPP reference:** None

**Data Validation Guidance:** EPA Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)

<b>Chain of Custody (COC) and Sample Receipt</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) COC complete and correct? (Project location, contacts, sample IDs, sample dates, field QC samples, analyses identified, et c.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) COC documents release of custody (signed and dated)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Field QC types provided (note types)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EB, FB, FD
d) Did the cooler contents match the COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were samples received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		See Note 2
f) Were cooler temperatures within control limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		See Note 1

<b>Data Package Information</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Laboratory name and location documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) All samples on COC reported in data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Requested analytical methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Requested analyte list reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Requested units reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Did the laboratory define the qualifiers used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g) Data package contains all information necessary to complete the data quality review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Solid samples reported on a dry-weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were solid samples percent moisture criteria acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Were sample dilutions noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
d) Were detected concentrations less than the QL qualified by the laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) All detected sample results within the calibrated range?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f) Did the laboratory satisfy the requested sensitivity requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Laboratory Case Narrative</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Note 3

<b>Sample Preservation and Holding Time</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Were samples properly preserved?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		See Note 2
b) Were holding times met for sample preparation and/or extraction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Were holding times met for sample analysis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		See Note 3

<b>Blanks</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) No analytes detected in the associated preparation/method blank(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) No analytes detected in the associated trip blank(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) No analytes detected in the associated field or equipment/rinsate blank(s)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Note 4

<b>Duplicates</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were field duplicates reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Was field duplicate RPD or absolute difference criteria acceptable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Note 5

<b>Overall Evaluation</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) No other technical problems that lead to data rejection identified by laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were data acceptable and usable, except where noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

**Comments/Notes:**

- 1) The cooler temperature for samples EBG, EP-1, EP-5, and Field Duplicate was outside QC limits ( $4 \pm 2^\circ\text{C}$ ) upon receipt to the laboratory ( $16.7^\circ\text{C}$ ). Following Guidelines and using professional judgment, no qualifications were required as samples were submitted on ice to the laboratory on the same day as sample collection.
- 2) The laboratory receiving checklist indicates that samples EP-3 and EP-4 were received with a pH not within quality control limits. Laboratory staff added additional nitric acid to bring pH within acceptable limits. No further action was required.
- 3) The holding time for the Total Dissolved Solids analysis is 7 days. Sample EP-6 required re-analysis for Total Dissolved Solids outside of acceptable holding times. The sample was analyzed approximately 9 days after sample collection. No further action was required other than to note. The matrix spike for calcium in sample EP-5 recovered at 148%, outside of the acceptable limits of 75-125%. The concentration of calcium in sample EP-5 was greater than 4x the spiking concentration and no further action is required.
- 4) Analytes were detected in method and equipment blanks, as shown in the table below. Equipment and field blanks are compared to primary samples collected on the same day. Associated detected results are considered potentially biased high.

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

Sample Name	Parameter	Analyte	Blank Result	RL/MDC	Units
Field Blank	Radium	Radium 228	0.67 J	1.00	pCi/L

- 5) Field duplicate RPDs did not meet acceptance criteria. Reporting limits were used to calculate RPDs for non-detect results. Using professional judgment, RPDs were first calculated, and analytes with RPDs above 30% were evaluated. Using professional judgement for inorganics, when the results are less than 5x the reporting limit and the absolute difference between the results is less than the reporting limit, no bias is suspected. When the results are less than 5x the reporting limit and the absolute difference between the results is greater than the reporting limit, associated detected results are considered potentially biased.

Primary Sample Name	Parameter	Analyte	Primary Sample Result	Duplicate Sample Result	RL/MDA Primary Sample	RL Duplicate Sample	Unit	RPD (%)
EBG	Metals	Antimony	0.0010 U	0.0034	0.0010	0.0010	mg/L	110
EBG	Mercury	Mercury	0.00020 U	0.00014 J	0.00020	0.00020	mg/L	35



**TABLE 1**  
**Sample Collection and Analysis Summary**  
**SIPC CCR Groundwater Monitoring**

Lab ID	Field Identification	Collection Date	Location	Matrix	QC Samples											
						Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Radium-226/228	Sulfate	TDS		
24030002-001	EBG	6/3/2024	EBG	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-002	EP-1	6/3/2024	EP-1	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-003	EP-2	6/4/2024	EP-2	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-004	EP-3	6/4/2024	EP-3	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-005	EP-4	6/4/2024	EP-4	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-006	EP-5	6/3/2024	EP-5	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-007	EP-6	6/4/2024	EP-6	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-008	EP-7	6/4/2024	EP-7	GW	-	X	X	X	X	X	X	X	X	X	X	X
24030002-009	Equipment Blank	6/4/2024	-	WQ	EB	X	-	X	X	X	X	X	X	X	X	X
24030002-010	Field Blank	6/4/2024	-	WQ	FB	X	-	X	X	X	X	X	X	X	X	X
24030002-011	Field Duplicate	6/3/2024	EBG	GW	FD	X	X	X	X	X	X	X	X	X	X	X

**Notes:**

All analyses performed by Teklab in Collinsville, IL and Summit Environmental Technologies in Cuyahoga Falls, OH

**Abbreviations:**

- EB: Equipment Blank
- FB: Field Blank
- FD: Field Duplicate
- GW: Ground Water
- QC: Quality Control
- TDS: Total Dissolved Solids
- WQ: Water Quality

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Project Name:** SIPC Groundwater Monitoring

**Project Number:** GL21467997.002

**Reviewing Company:** WSP USA

**Project Manager:** Danielle Sylvia Cofelice

**Data Evaluator:** Nathan Demers

**Data Evaluation Date:** October 21, 2024

**Checked by:** Danielle Sylvia Cofelice

**Review Date:** October 22, 2024

**Laboratory:** Teklab, Inc., Summit Environmental Technologies, Inc.

**Lab Job #:** 24080520

**Matrix:**  Aqueous  Soil  Sediment  Waste  Air  Other:

**Analytical Methods:** Total dissolved solids by SM 2540C; chloride by 4500-CL E; sulfate by SW-846 9036; fluoride by SW-846 9214; total metals by SW-846 3005A, 6010B and 6020A; mercury by SW-846 7470A; Radium226/228 by EPA 903.0/904.0

**Sample Information:** See Table 1.

**Data Qualification:** No qualifications required.

**Work Plan or QAPP reference:** None

**Data Validation Guidance:** EPA Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8)

<b>Chain of Custody (COC) and Sample Receipt</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) COC complete and correct? (Project location, contacts, sample IDs, sample dates, field QC samples, analyses identified, et c.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) COC documents release of custody (signed and dated)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Field QC types provided (note types)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EB, FB, FD
d) Did the cooler contents match the COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were samples received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f) Were cooler temperatures within control limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		See Note 1.

<b>Data Package Information</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Laboratory name and location documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) All samples on COC reported in data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Requested analytical methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Requested analyte list reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Requested units reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Did the laboratory define the qualifiers used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
g) Data package contains all information necessary to complete the data quality review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Solid samples reported on a dry-weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were solid samples percent moisture criteria acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Were sample dilutions noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

**QA LEVEL I - DATA VERIFICATION CHECKLIST**

**Analytical Assessment** **YES NO NA** **COMMENT**

- d) Were detected concentrations less than the QL qualified by the laboratory?
- e) All detected sample results within the calibrated range?
- f) Did the laboratory satisfy the requested sensitivity requirements?

**Laboratory Case Narrative** **YES NO NA** **COMMENT**

- a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?

**Sample Preservation and Holding Time** **YES NO NA** **COMMENT**

- a) Were samples properly preserved?
- b) Were holding times met for sample preparation and/or extraction?
- c) Were holding times met for sample analysis?

**Blanks** **YES NO NA** **COMMENTS**

- a) No analytes detected in the associated preparation/method blank(s)?
- b) No analytes detected in the associated trip blank(s)?
- c) No analytes detected in the associated field or equipment/rinsate blank(s)?    See Note 2.

**Duplicates** **YES NO NA** **COMMENTS**

- a) Were field duplicates reported?
- b) Was field duplicate RPD or absolute difference criteria acceptable?

**Overall Evaluation** **YES NO NA** **COMMENTS**

- a) No other technical problems that lead to data rejection identified by laboratory?
- b) Were data acceptable and usable, except where noted?

**Comments/Notes:**

- 1) The cooler temperature for all samples was outside QC limits ( $4 \pm 2^\circ\text{C}$ ) upon receipt to the laboratory ( $10.3^\circ\text{C}$ ). Following Guidelines and using professional judgment, no qualifications were required as samples were submitted on ice to the laboratory on the same day as sample collection.
- 2) Analytes were detected in method and equipment blanks, as shown in the table below. Equipment and field blanks are compared to primary samples collected on the same day. Associated detected results are considered potentially biased high.

Sample Name	Parameter	Analyte	Blank Result	RL	Units
Field Blank	ICP Metals	Antimony	0.0011	0.0010	mg/L
Equipment Blank	ICP Metals	Calcium	0.075 J	0.10	mg/L
Equipment Blank	ICP Metals	Chromium	0.0022	0.0015	mg/L
Equipment Blank	Radium	Radium-228	0.77 J	1.00	pCi/L
Field Blank	Radium	Radium-228	1.34	1.00	pCi/L

**TABLE 1**  
**Sample Collection and Analysis Summary**  
**SIPC CCR Groundwater Monitoring**

Lab ID	Field Identification	Collection Date	Location	Matrix	QC Samples											
						Chloride	Field Parameters	Fluoride	ICP Metals	ICP/MS Metals	Mercury	Radium-226/228	Sulfate	TDS		
24080520-001	EBG	9/4/2024	EBG	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-002	EP-1	9/4/2024	EP-1	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-003	EP-2	9/4/2024	EP-2	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-004	EP-3	9/5/2024	EP-3	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-005	EP-4	9/5/2024	EP-4	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-006	EP-5	9/4/2024	EP-5	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-007	EP-6	9/4/2024	EP-6	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-008	EP-7	9/5/2024	EP-7	GW	-	X	X	X	X	X	X	X	X	X	X	X
24080520-009	Equipment Blank	9/5/2024	-	WQ	EB	X	-	X	X	X	X	X	X	X	X	X
24080520-010	Field Blank	9/5/2024	-	WQ	FB	X	-	X	X	X	X	X	X	X	X	X
24080520-011	Field Duplicate	9/4/2024	EBG	GW	FD	X	X	X	X	X	X	X	X	X	X	X

**Notes:**

All analyses performed by Teklab in Collinsville, IL and Summit Environmental Technologies in Cuyahoga Falls, OH

**Abbreviations:**

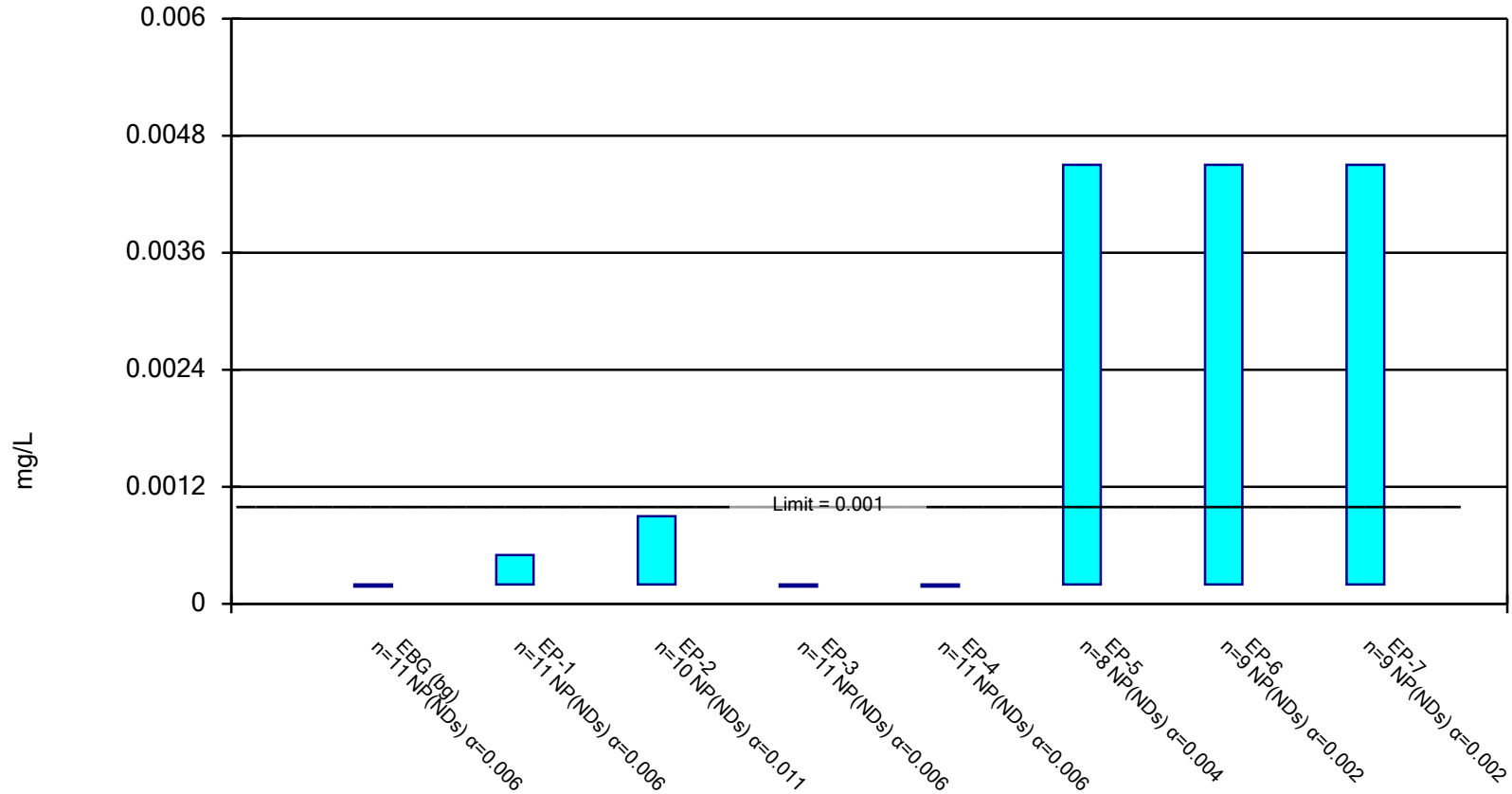
- EB: Equipment Blank
- FB: Field Blank
- FD: Field Duplicate
- GW: Ground Water
- QC: Quality Control
- TDS: Total Dissolved Solids
- WQ: Water Quality

**APPENDIX D**

## **2024 Statistical Evaluation**

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



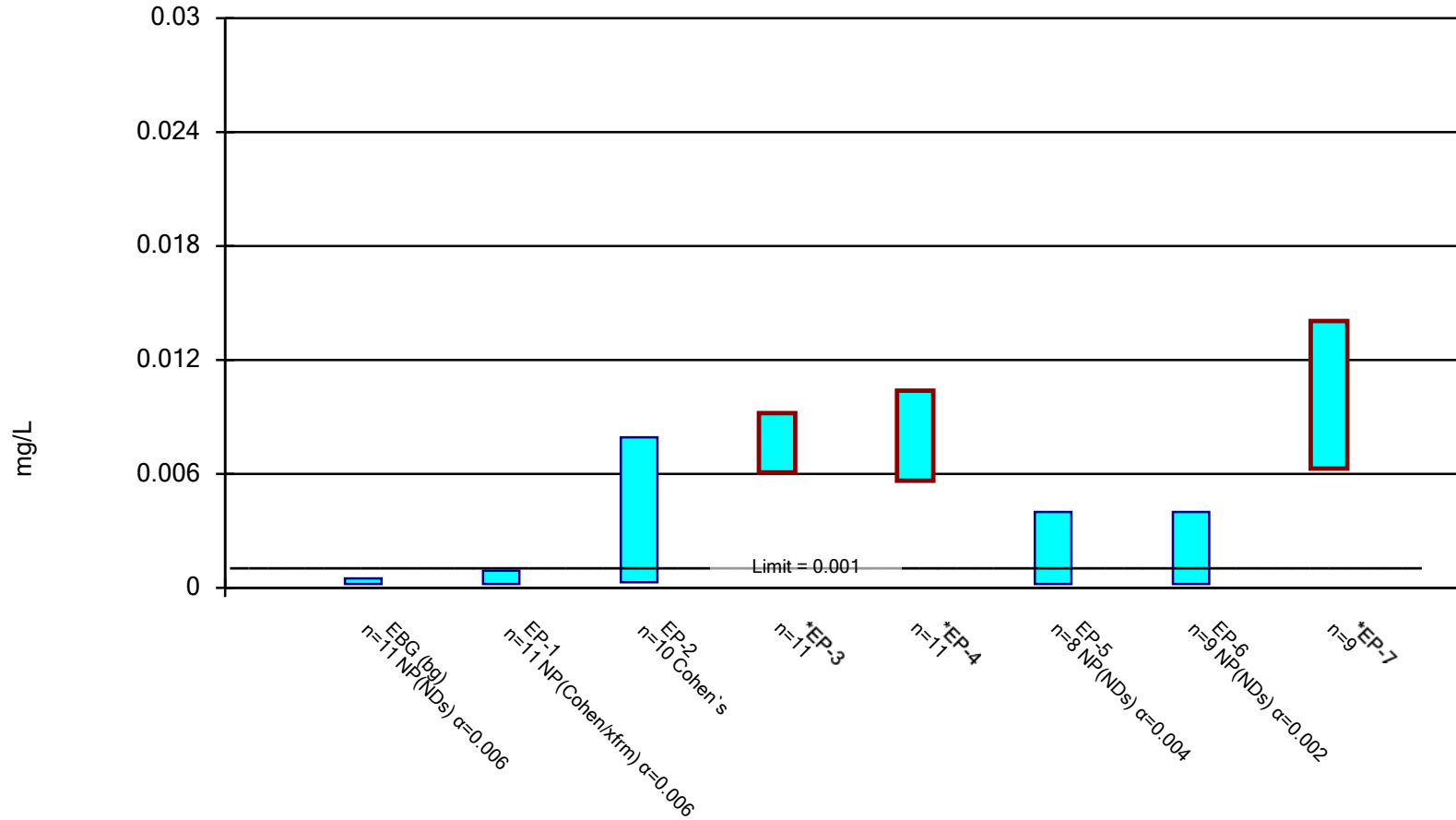
Constituent: Antimony Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

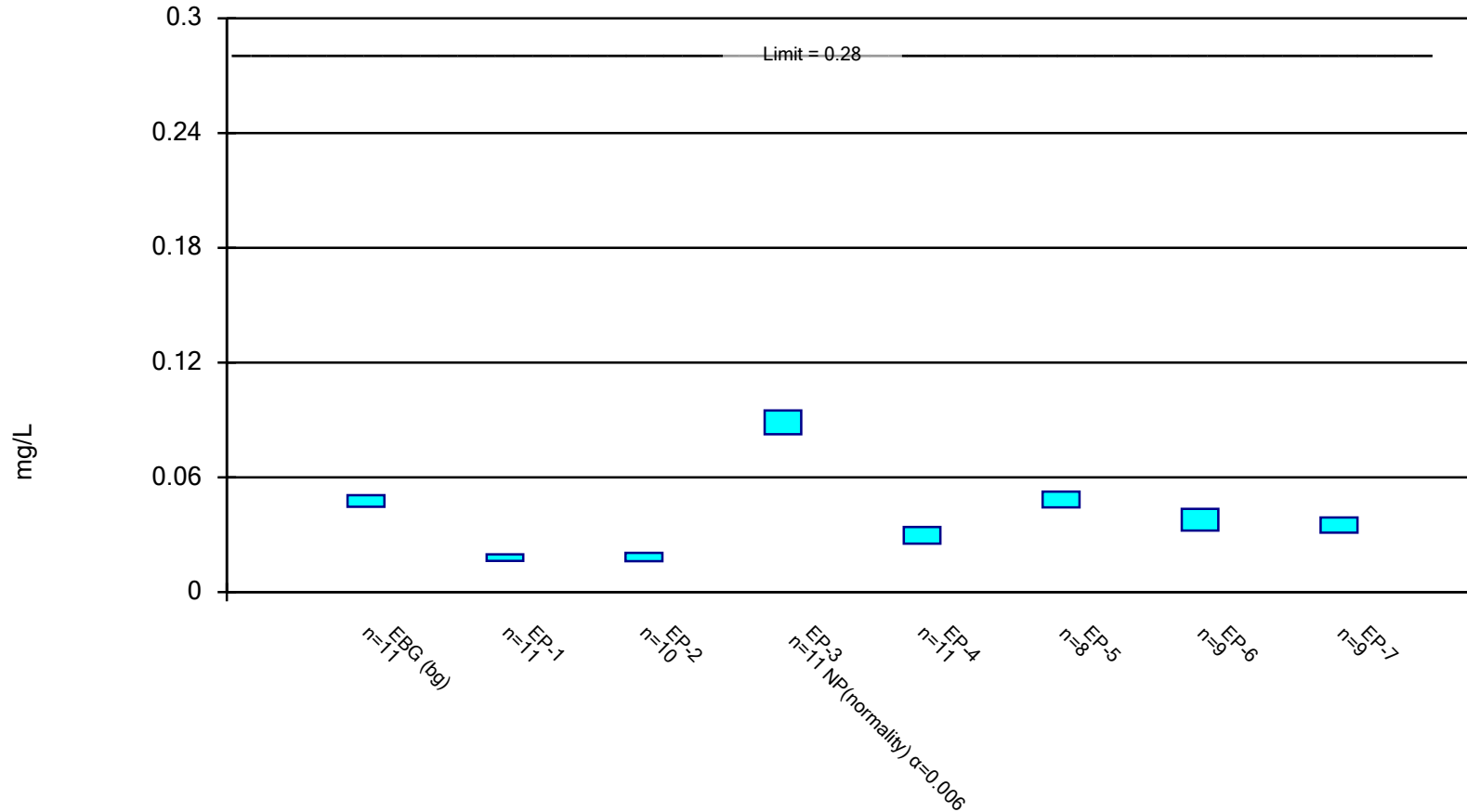


Constituent: Arsenic Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

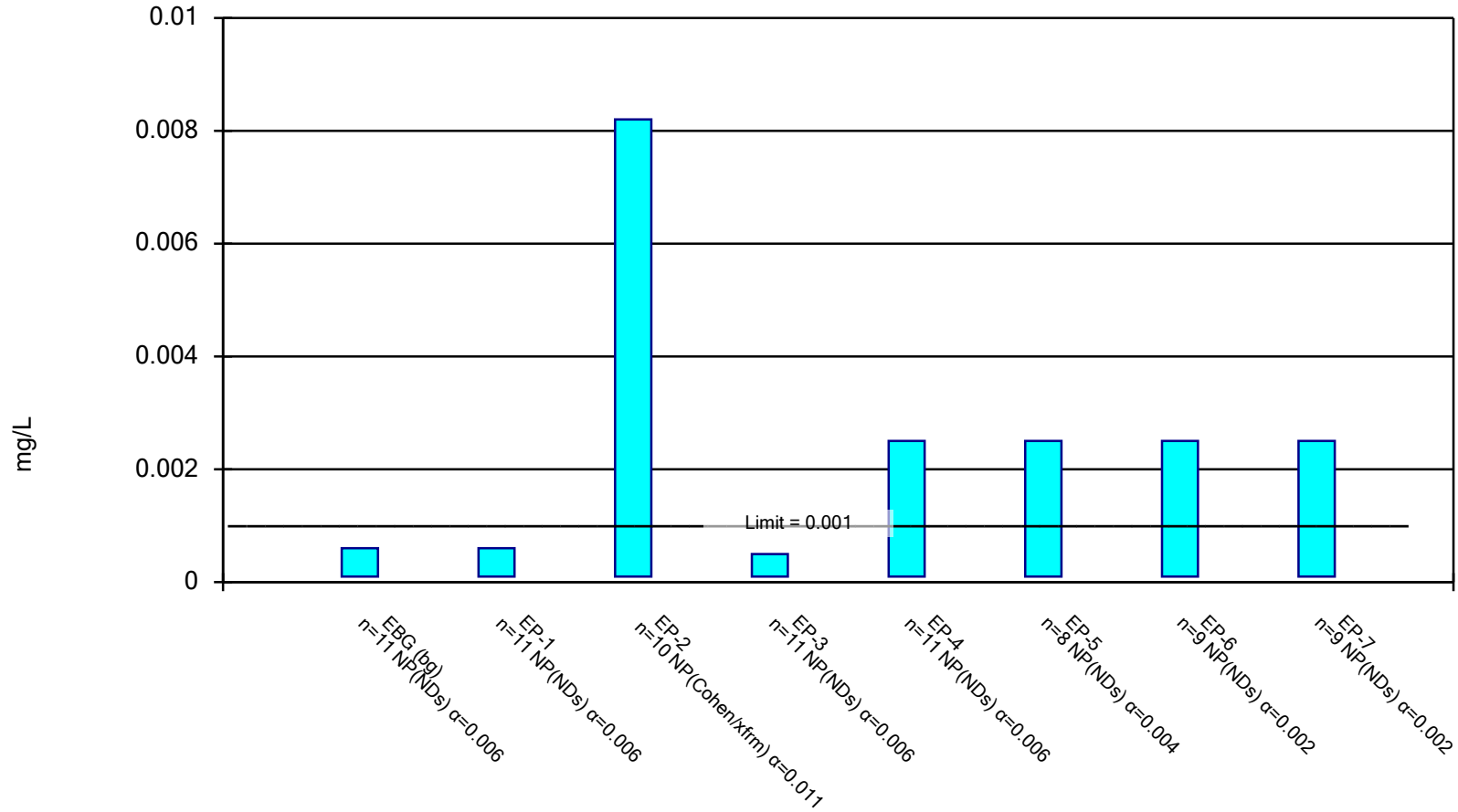
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium    Analysis Run 2/2/2024 5:15 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

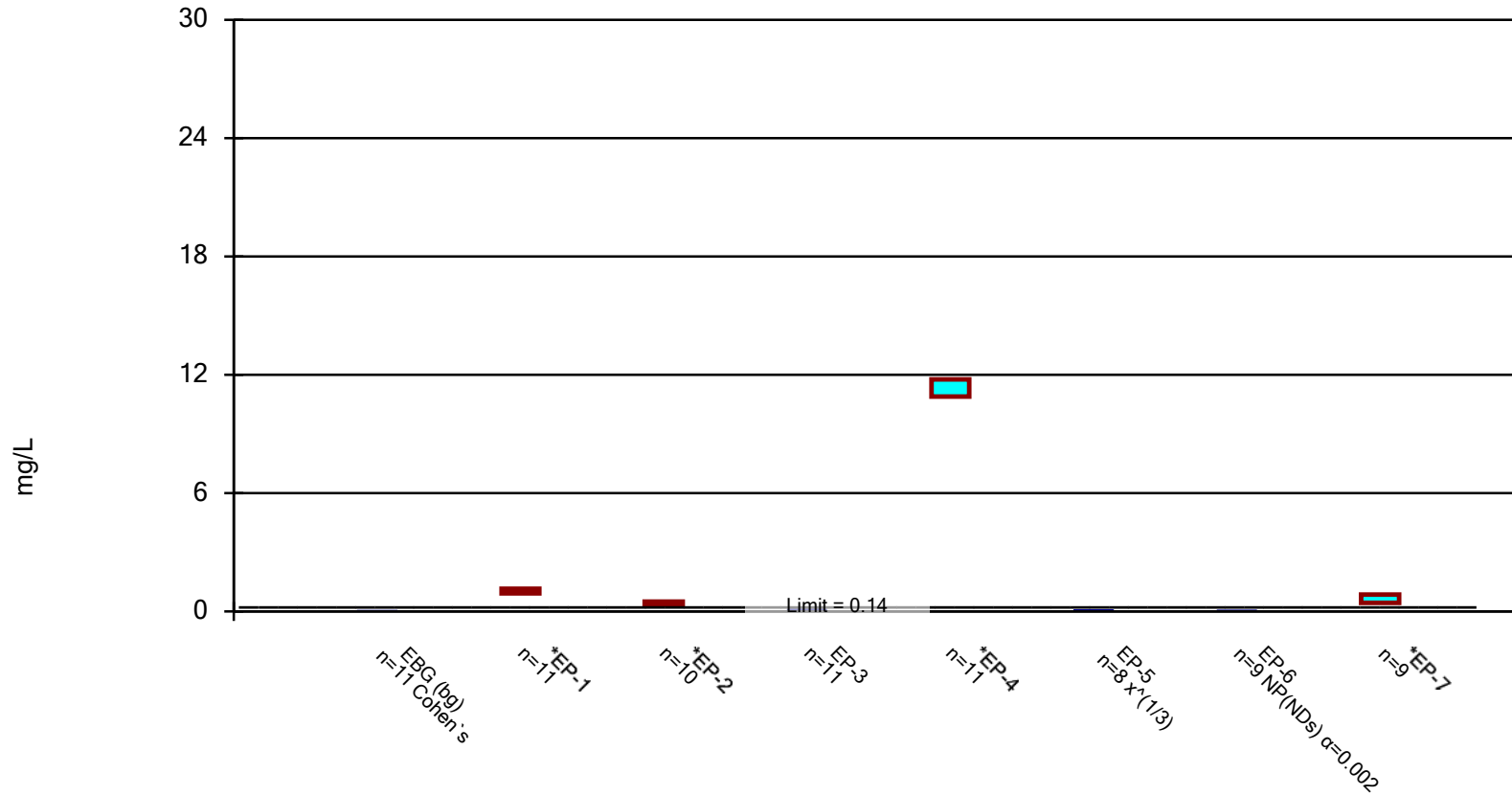


Constituent: Beryllium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

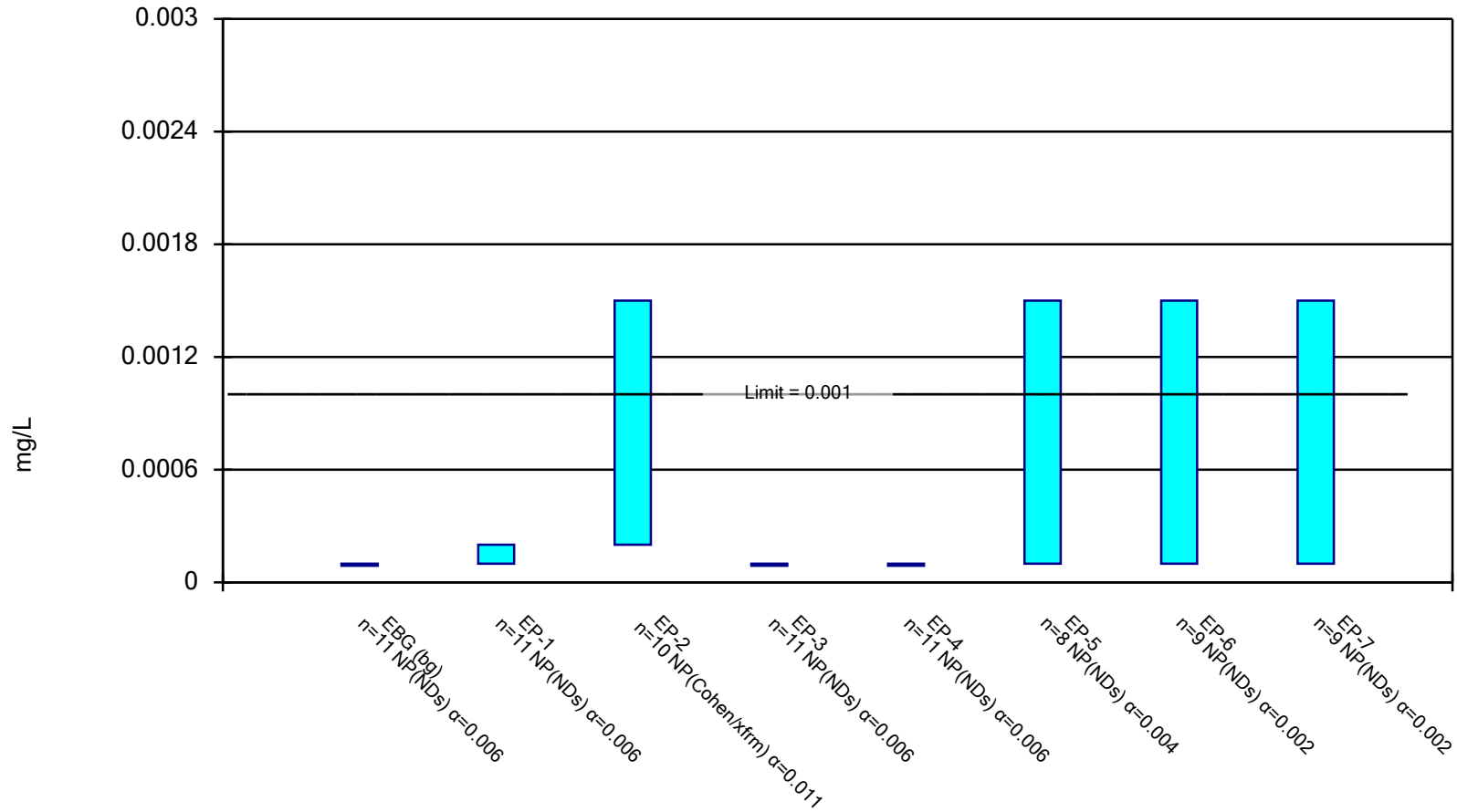


Constituent: Boron Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

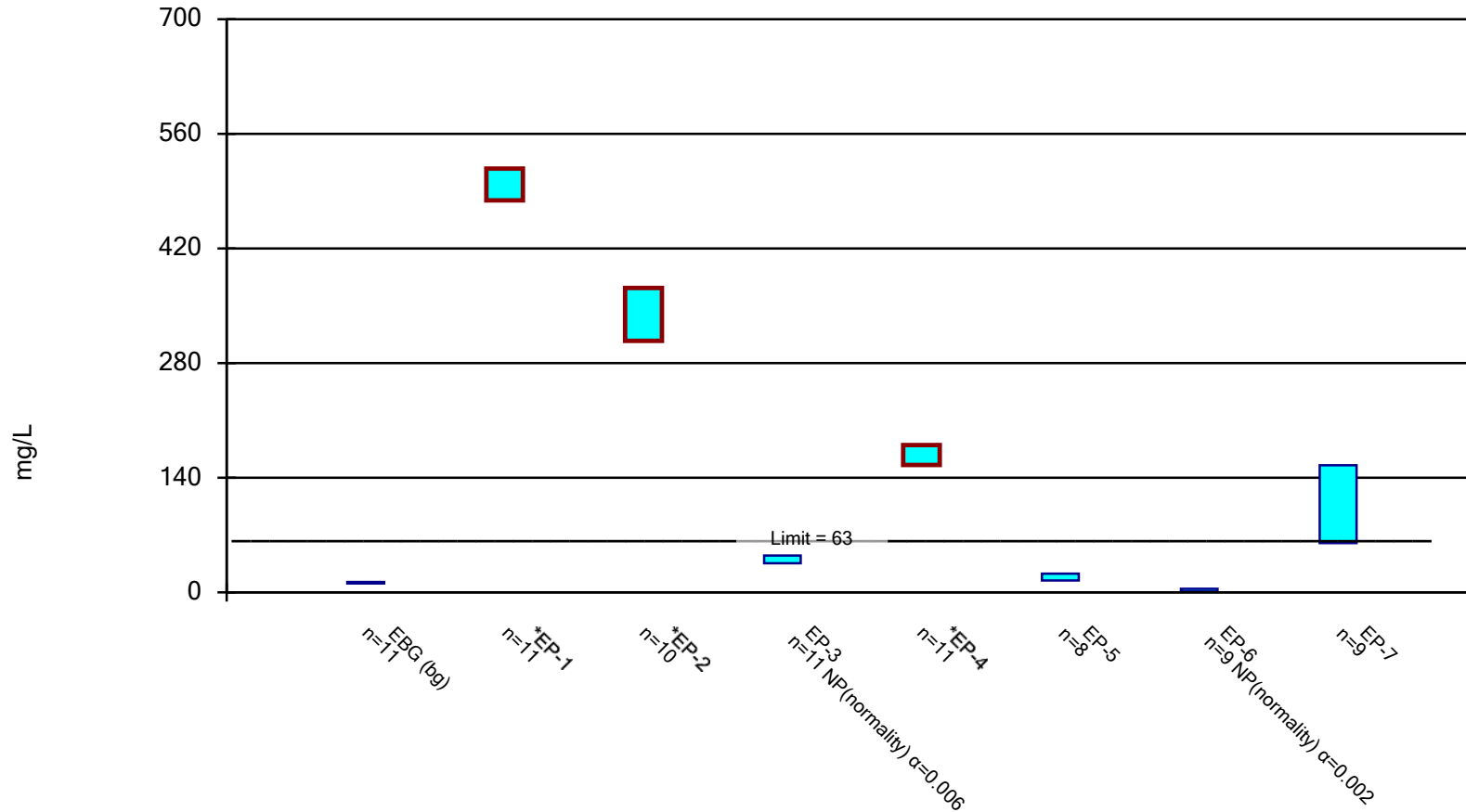


Constituent: Cadmium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

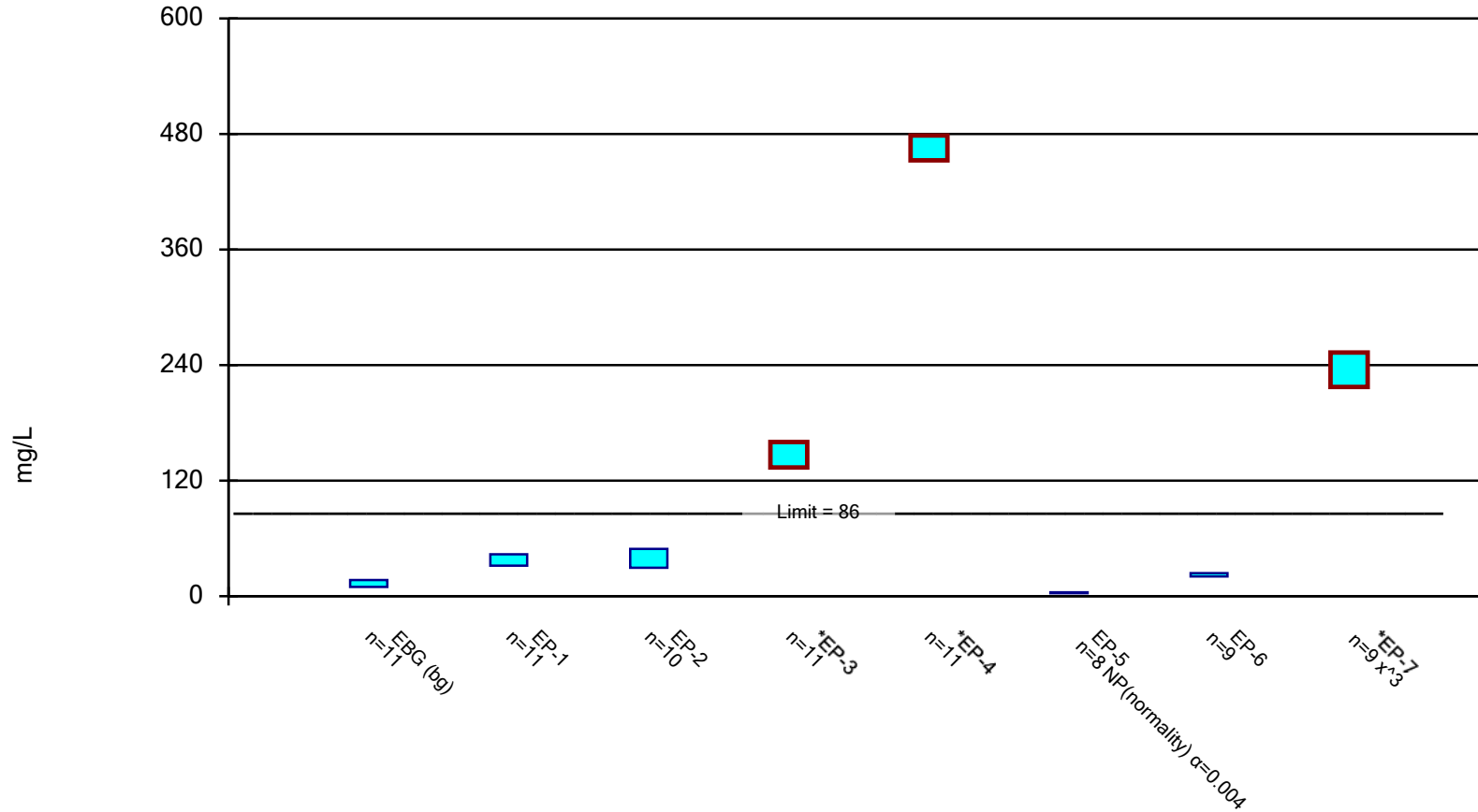


Constituent: Calcium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



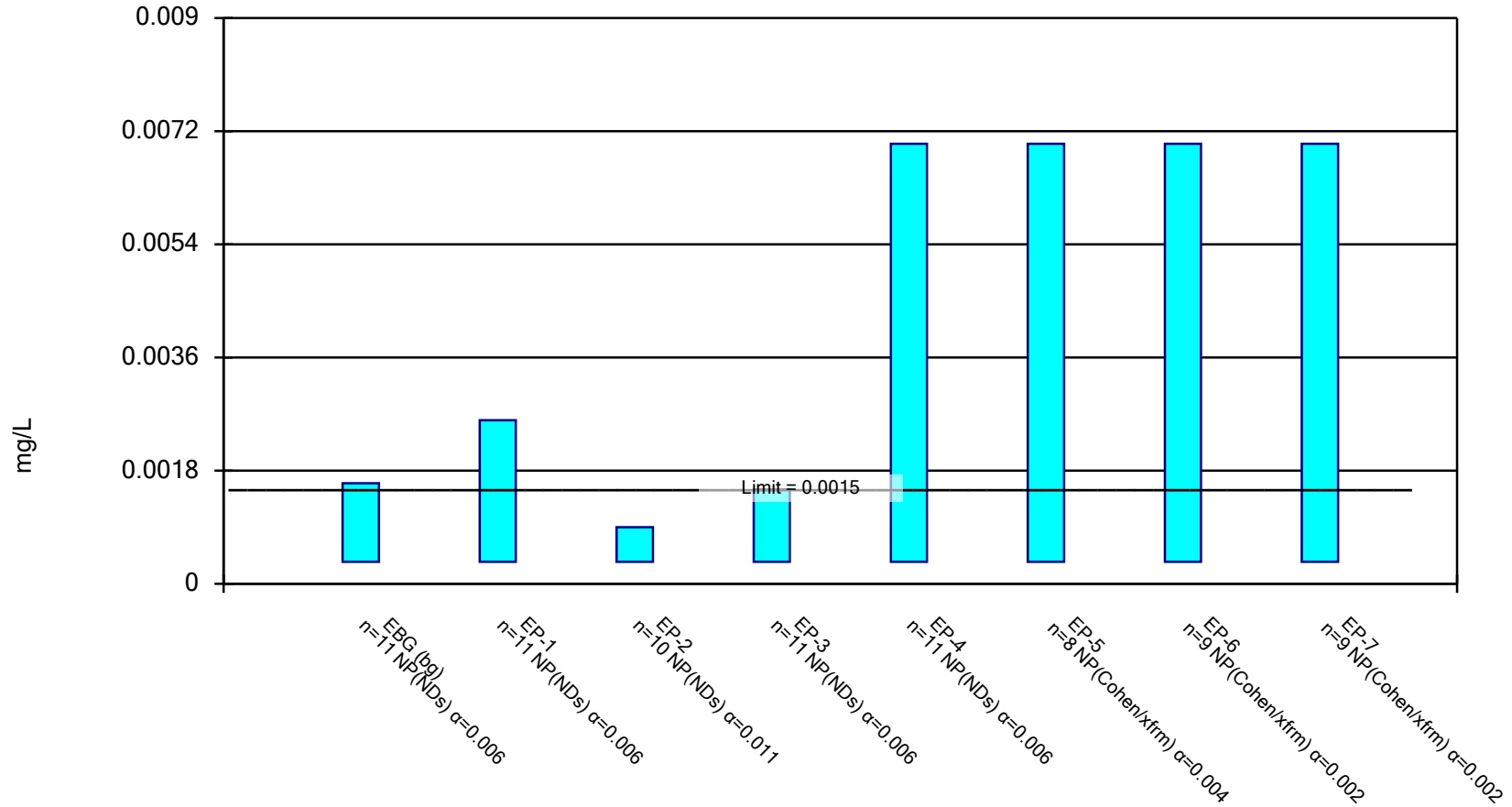
Constituent: Chloride Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged



# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

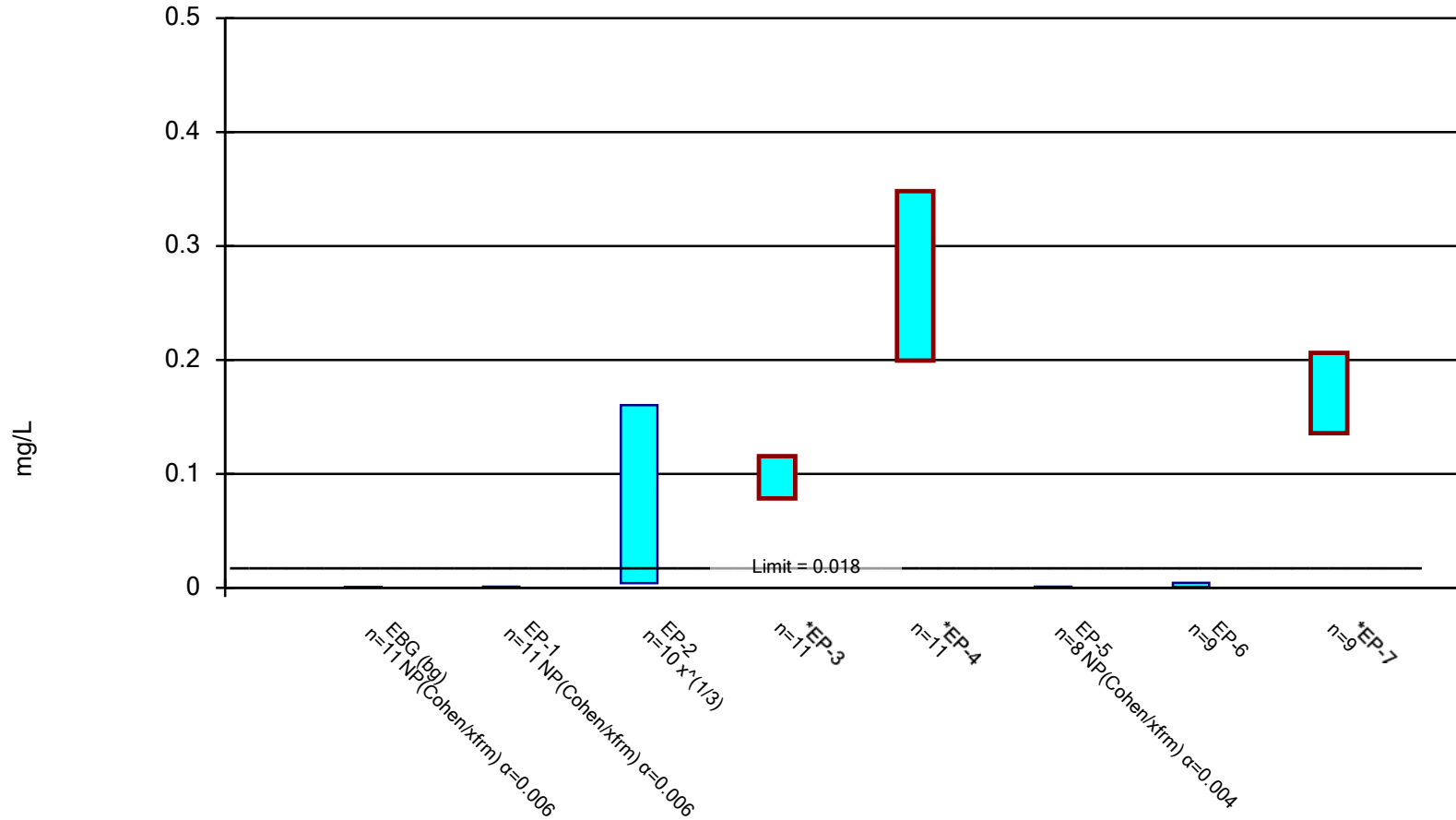


Constituent: Chromium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

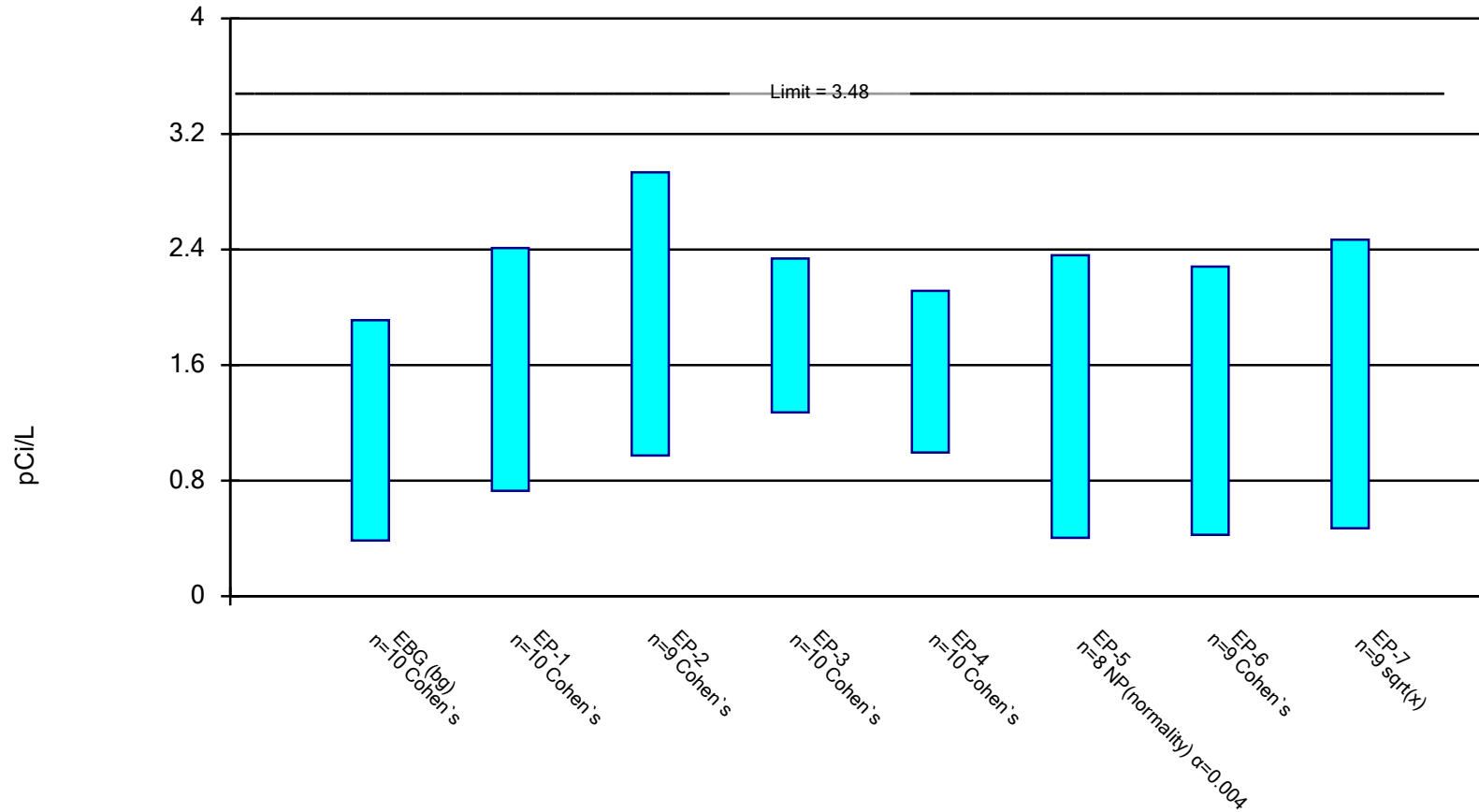


Constituent: Cobalt Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

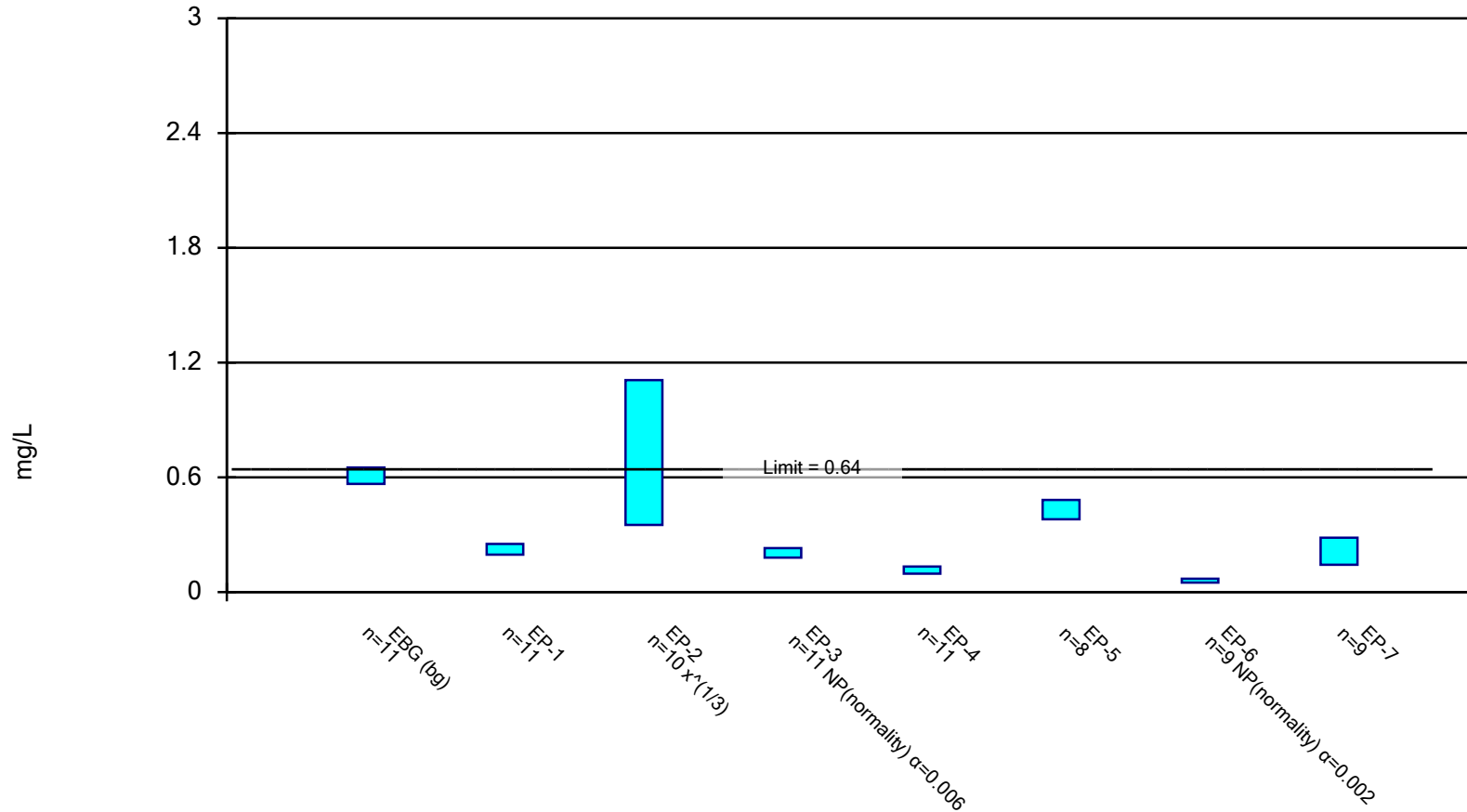


Constituent: Combined Radium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

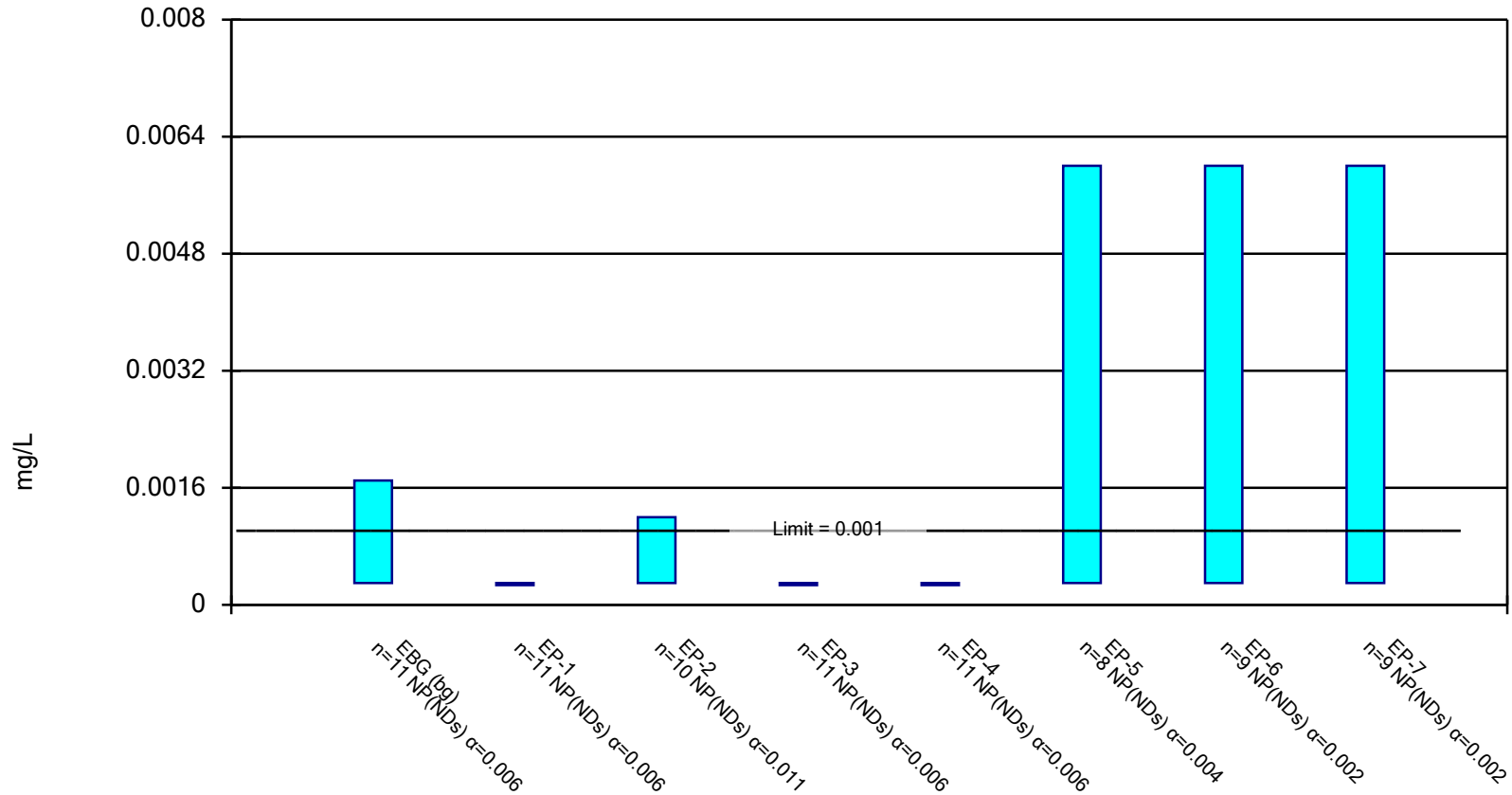


Constituent: Fluoride Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

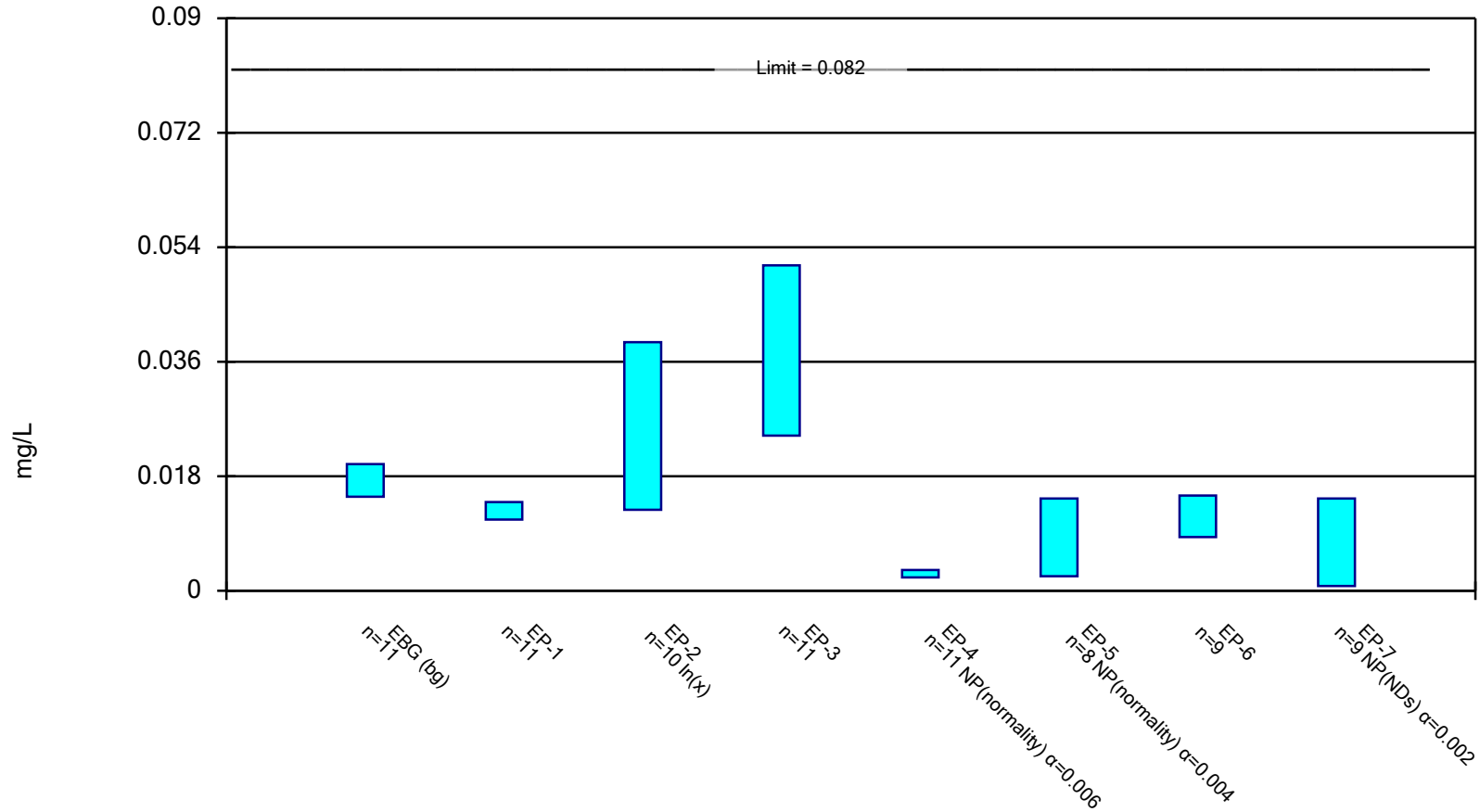


Constituent: Lead Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

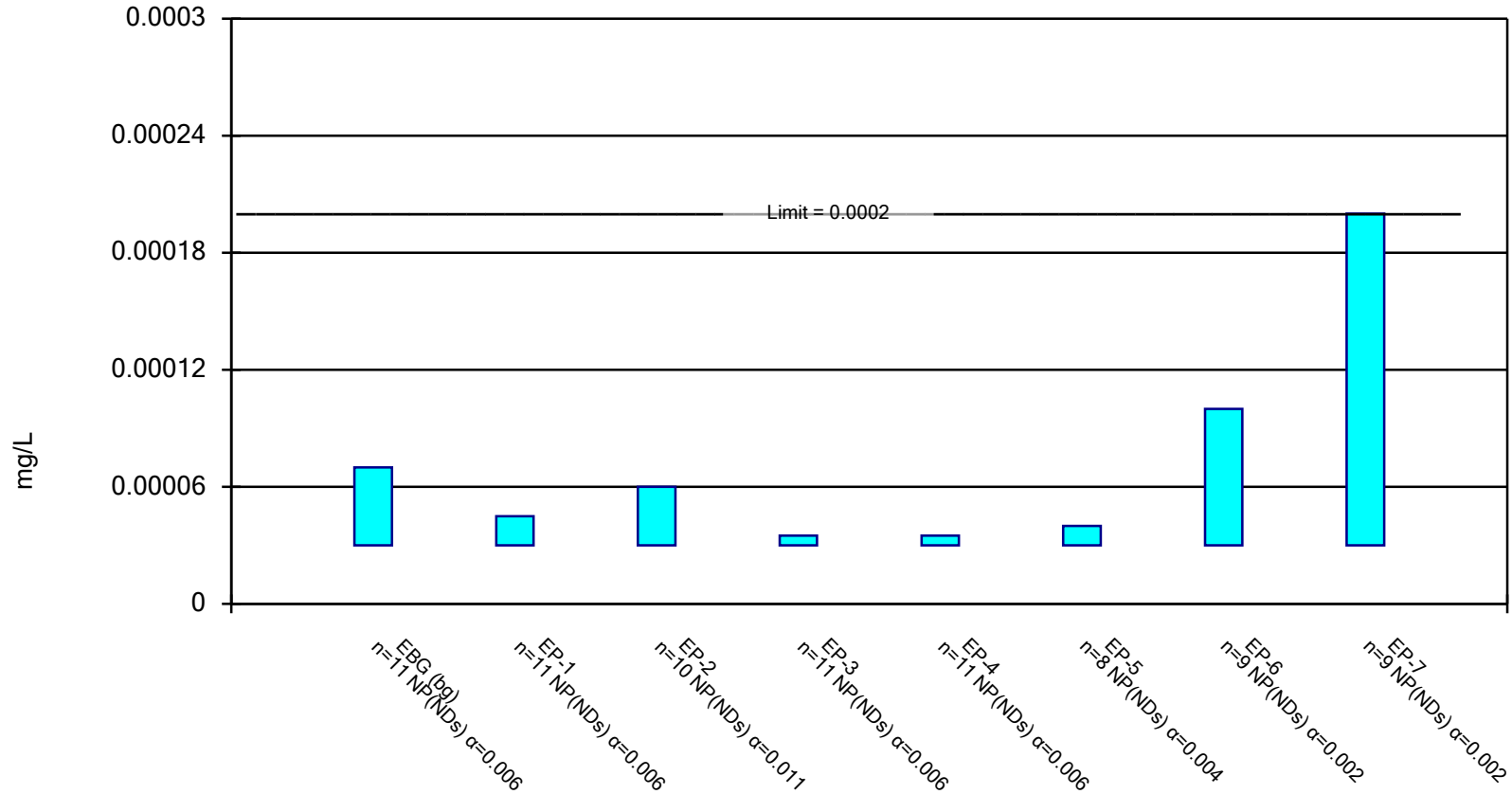
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium    Analysis Run 2/2/2024 5:15 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



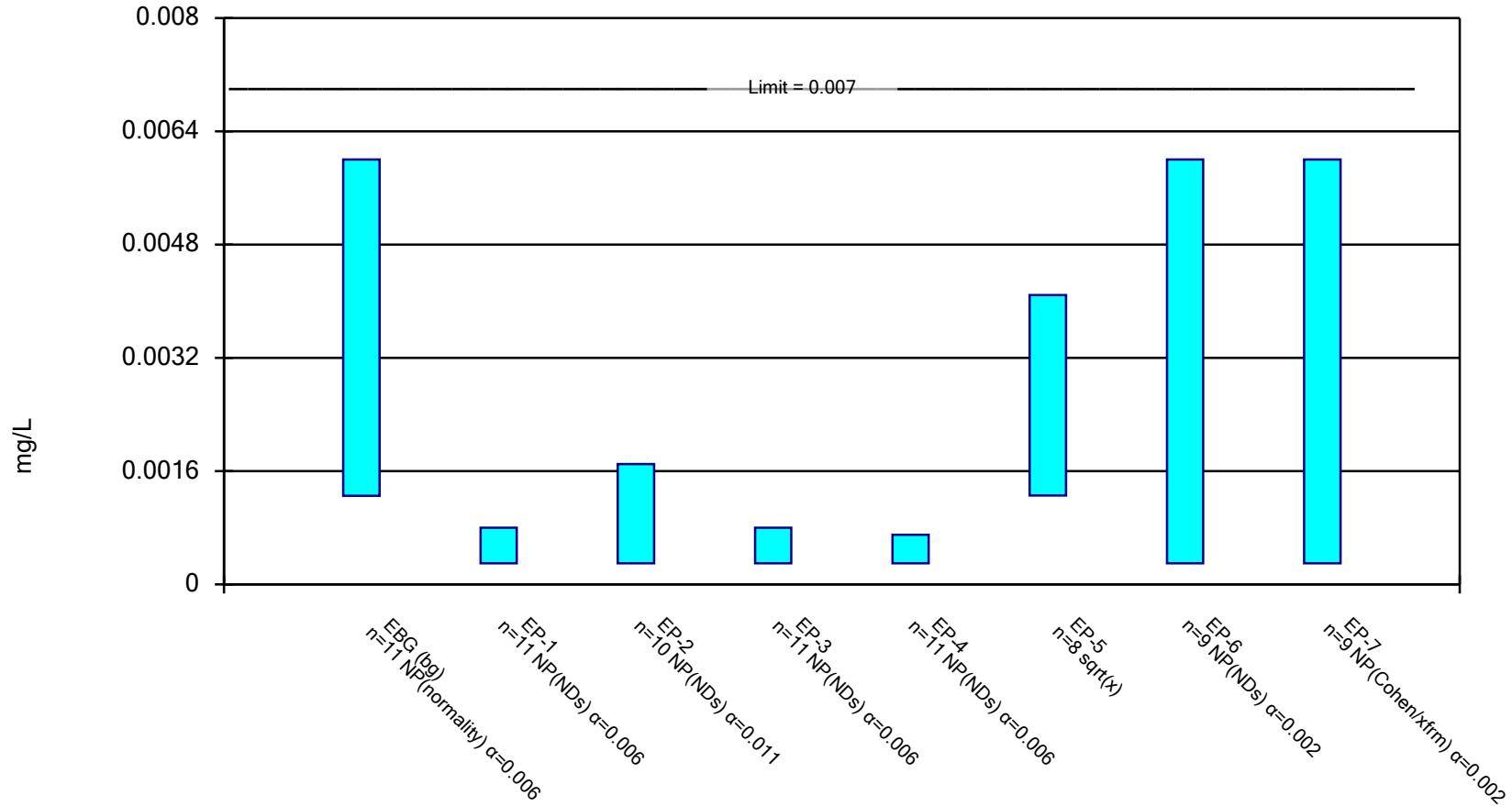
Constituent: Mercury Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

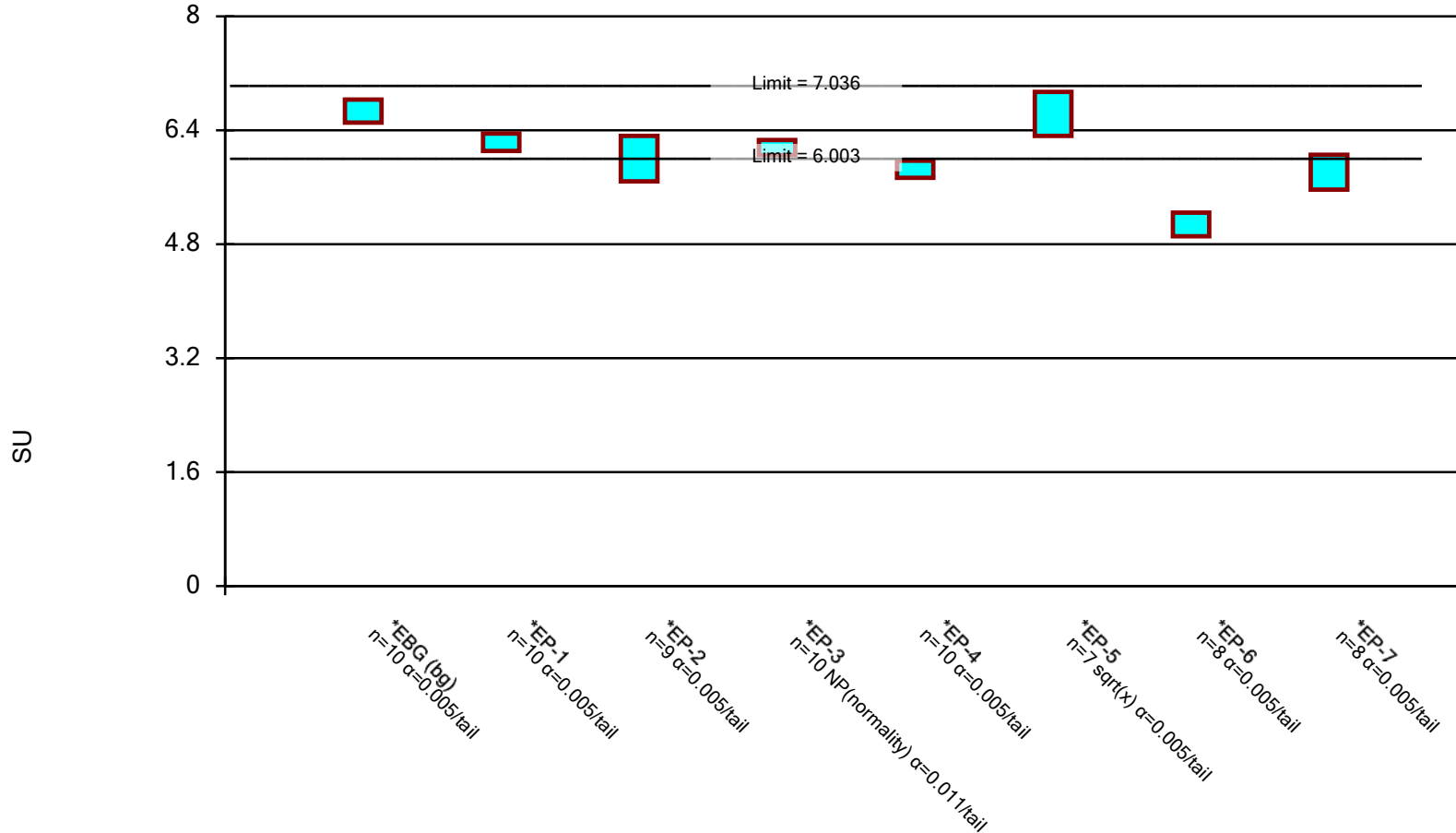


Constituent: Molybdenum Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Normality Test: Shapiro Wilk, alpha based on n.

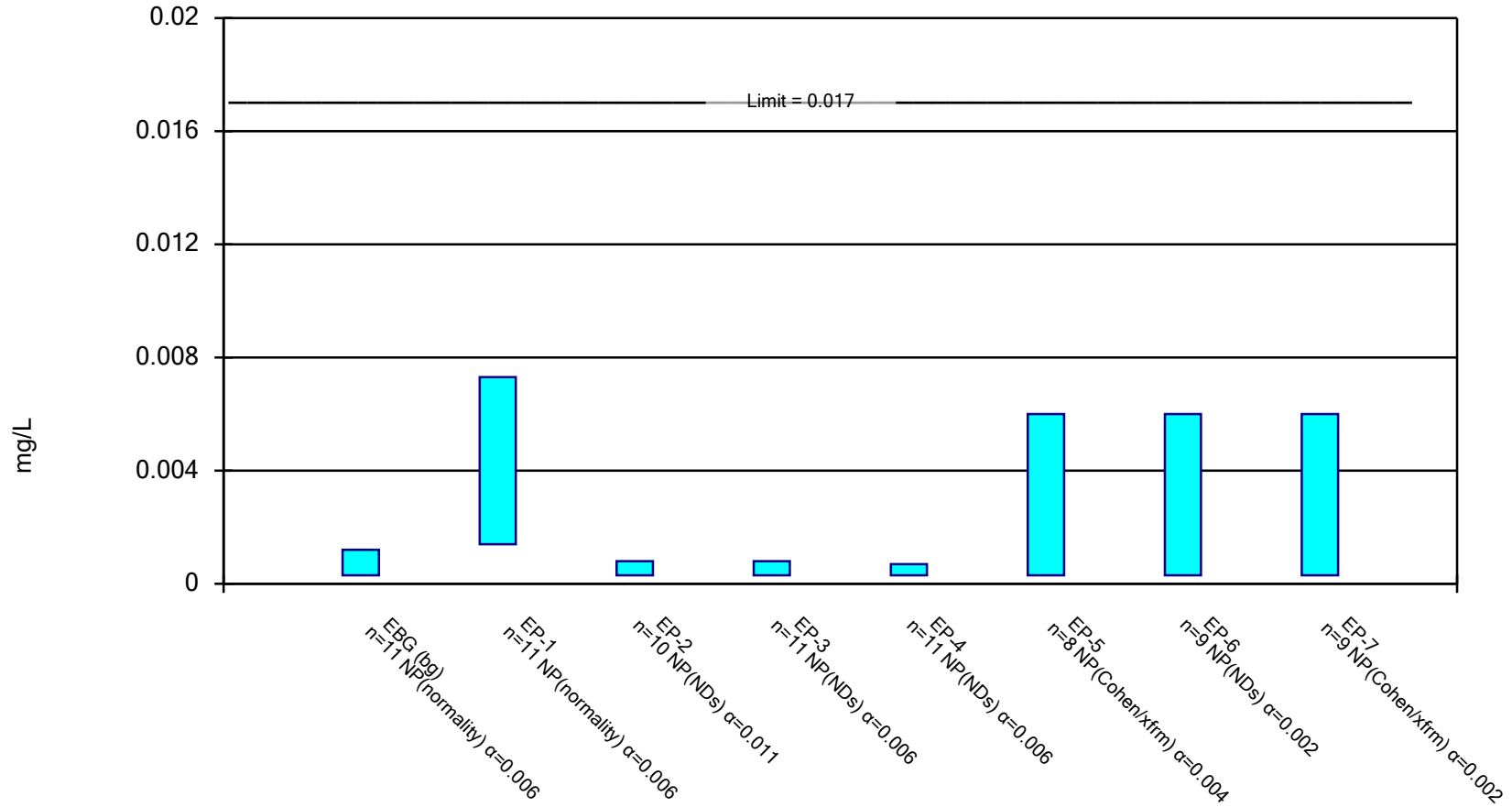


Constituent: pH Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

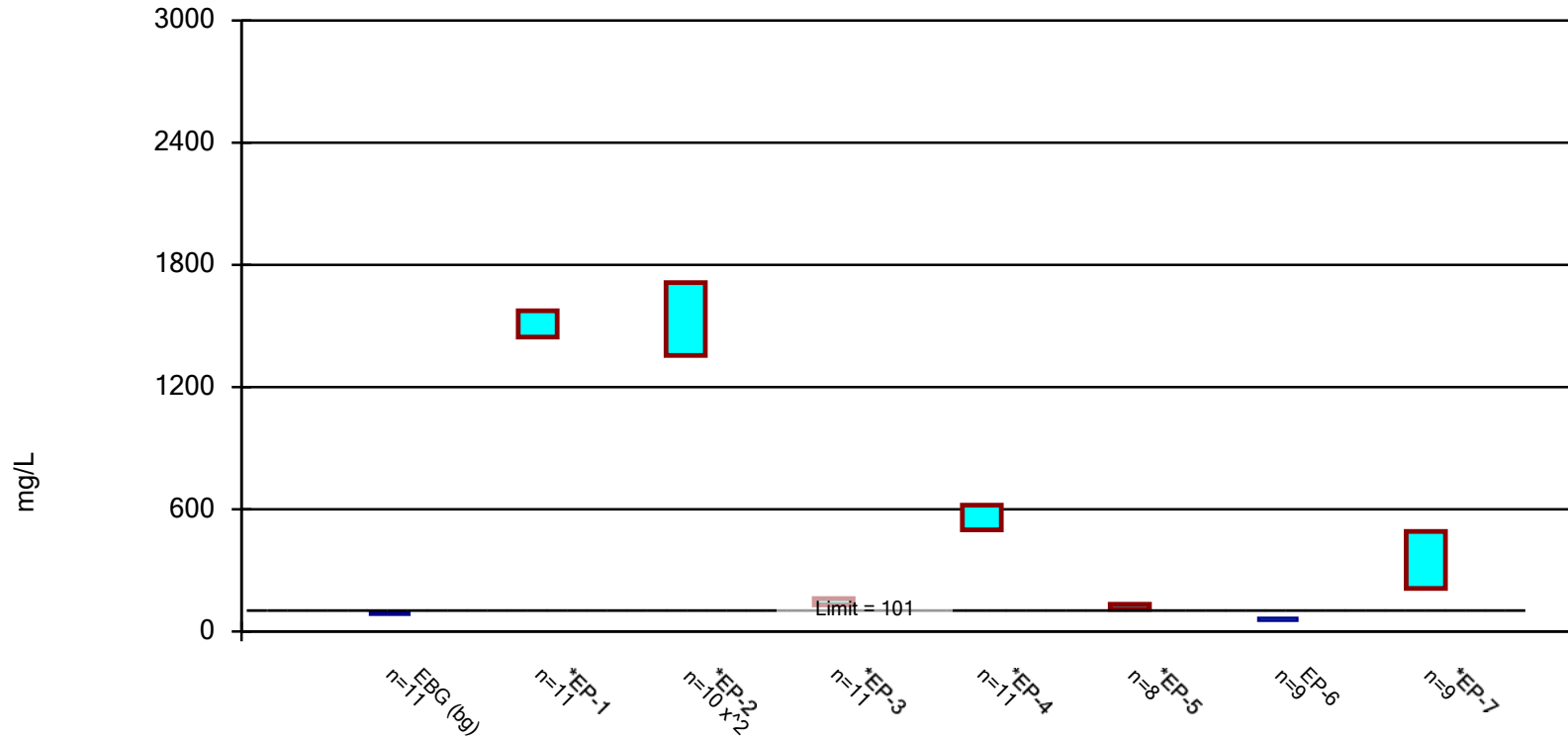


Constituent: Selenium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

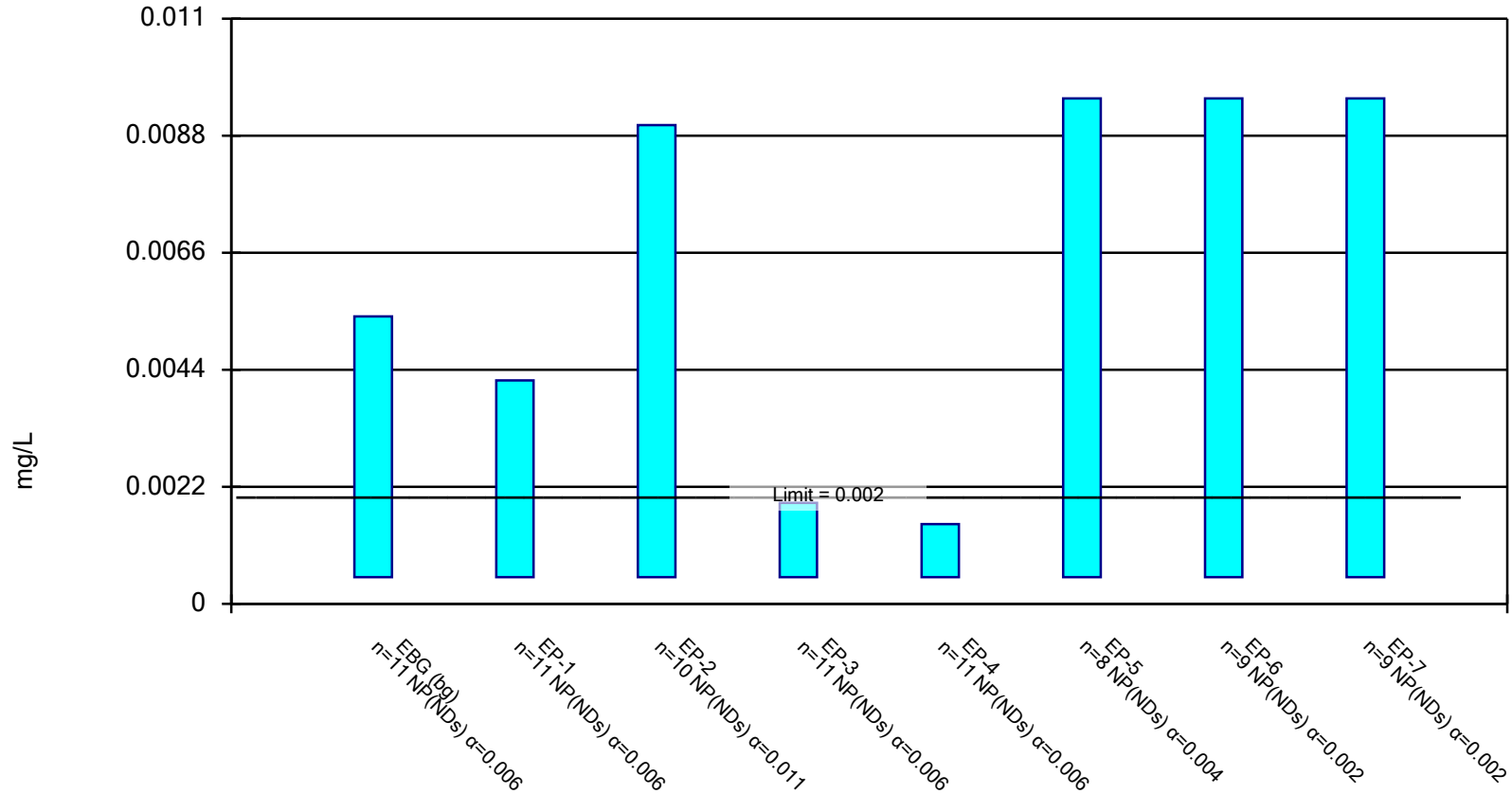


Constituent: Sulfate Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

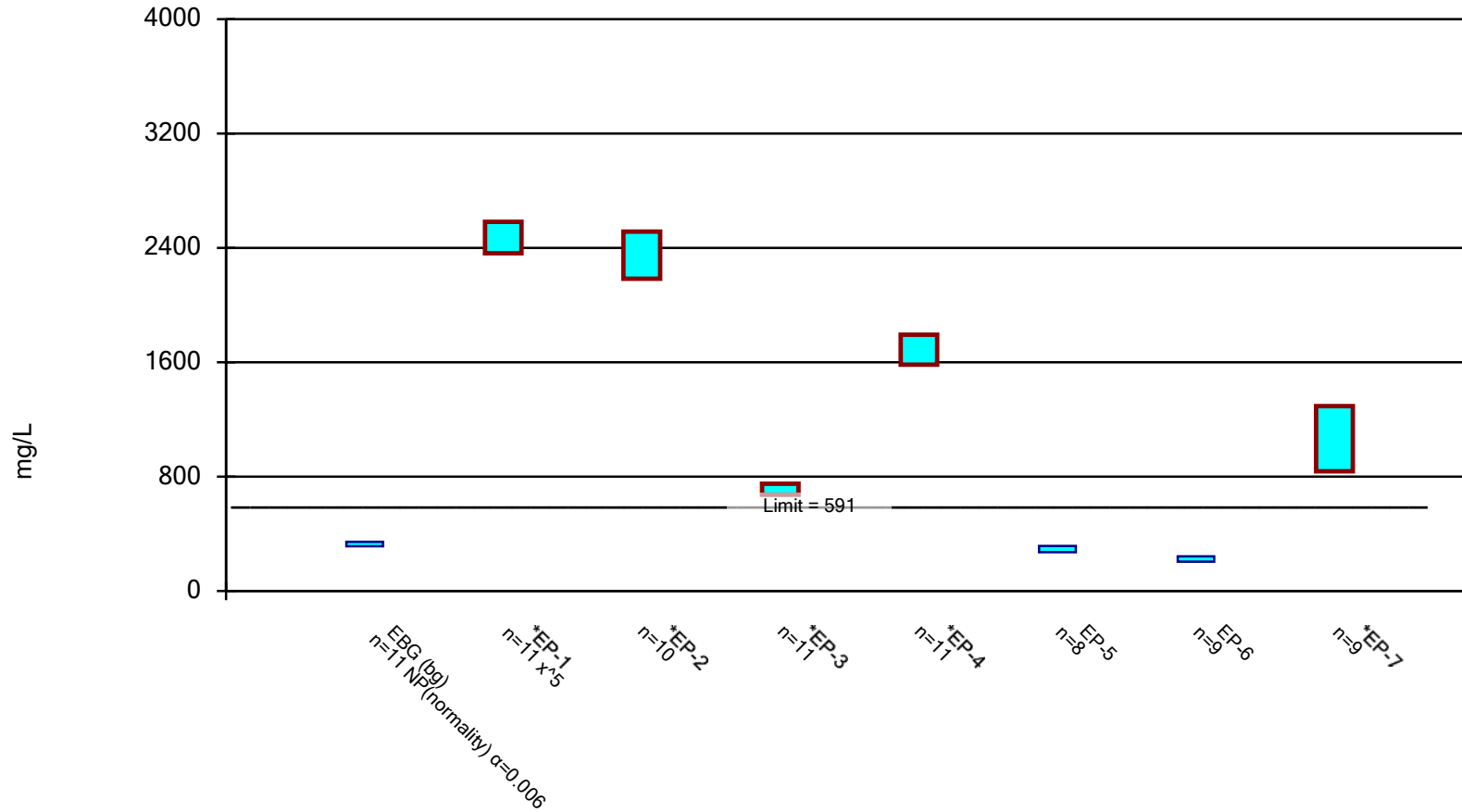


Constituent: Thallium Analysis Run 2/2/2024 5:15 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Total Dissolved Solids Analysis Run 2/2/2024 5:15 PM

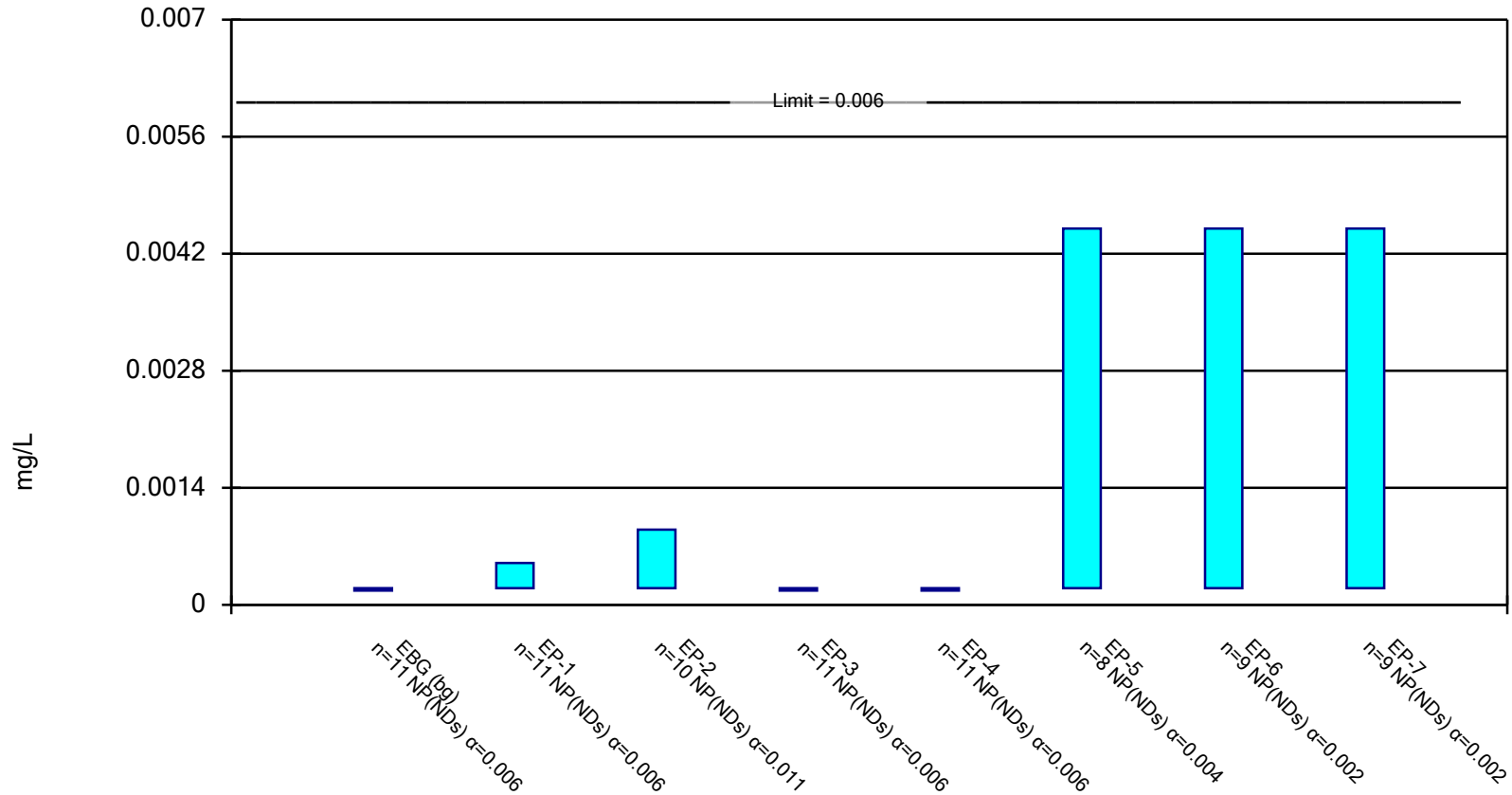
Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged





# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

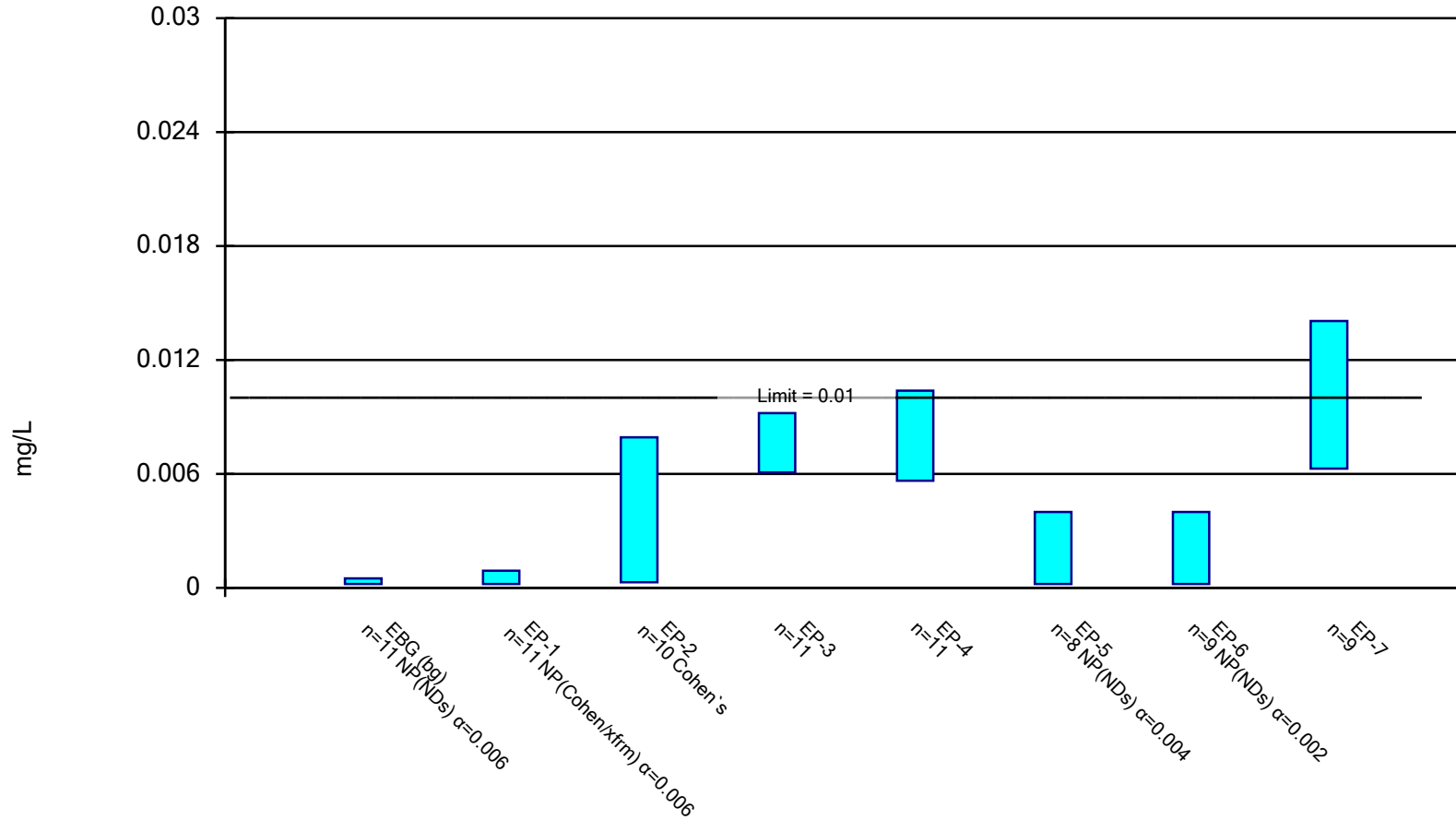


Constituent: Antimony Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

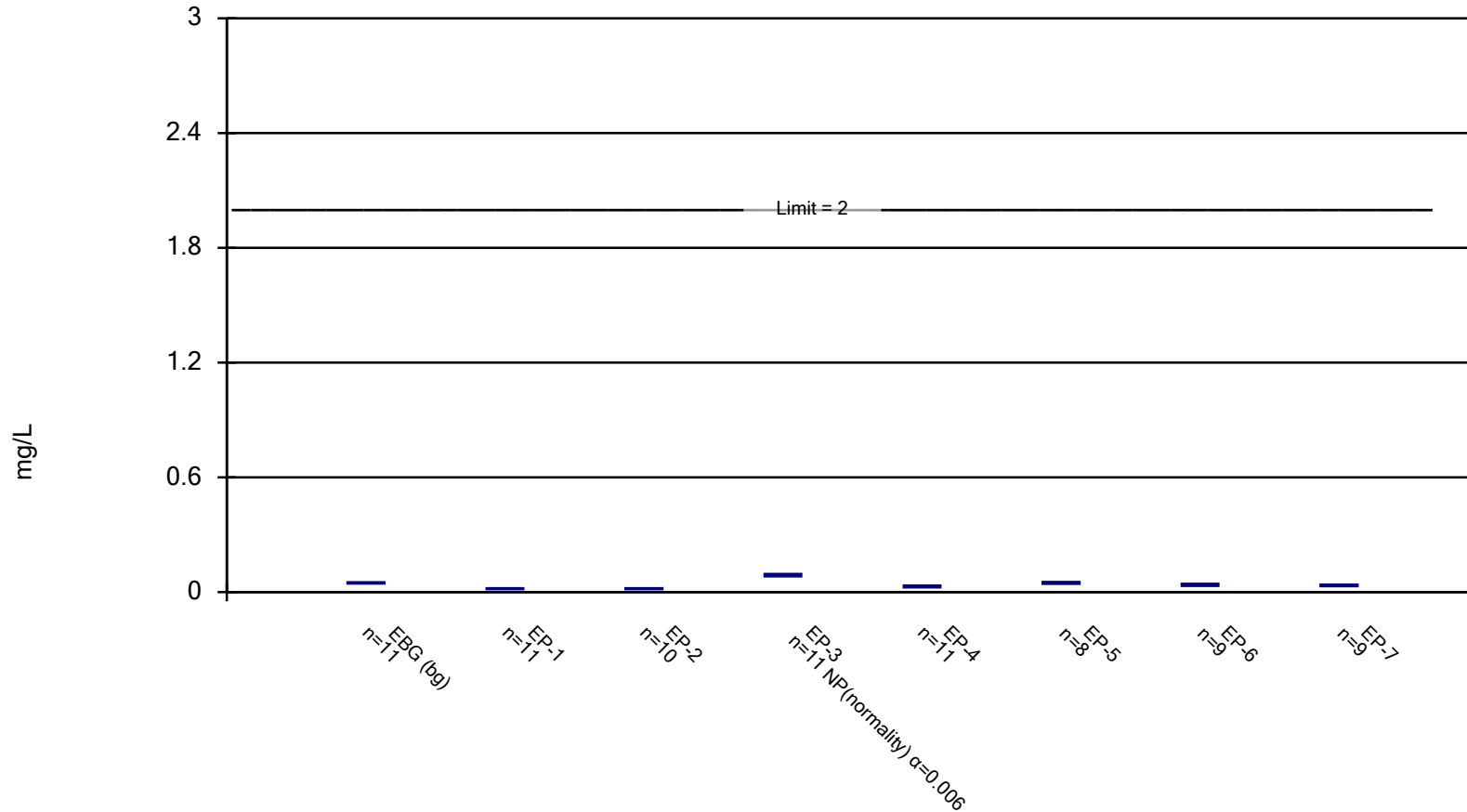
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic    Analysis Run 2/2/2024 4:57 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

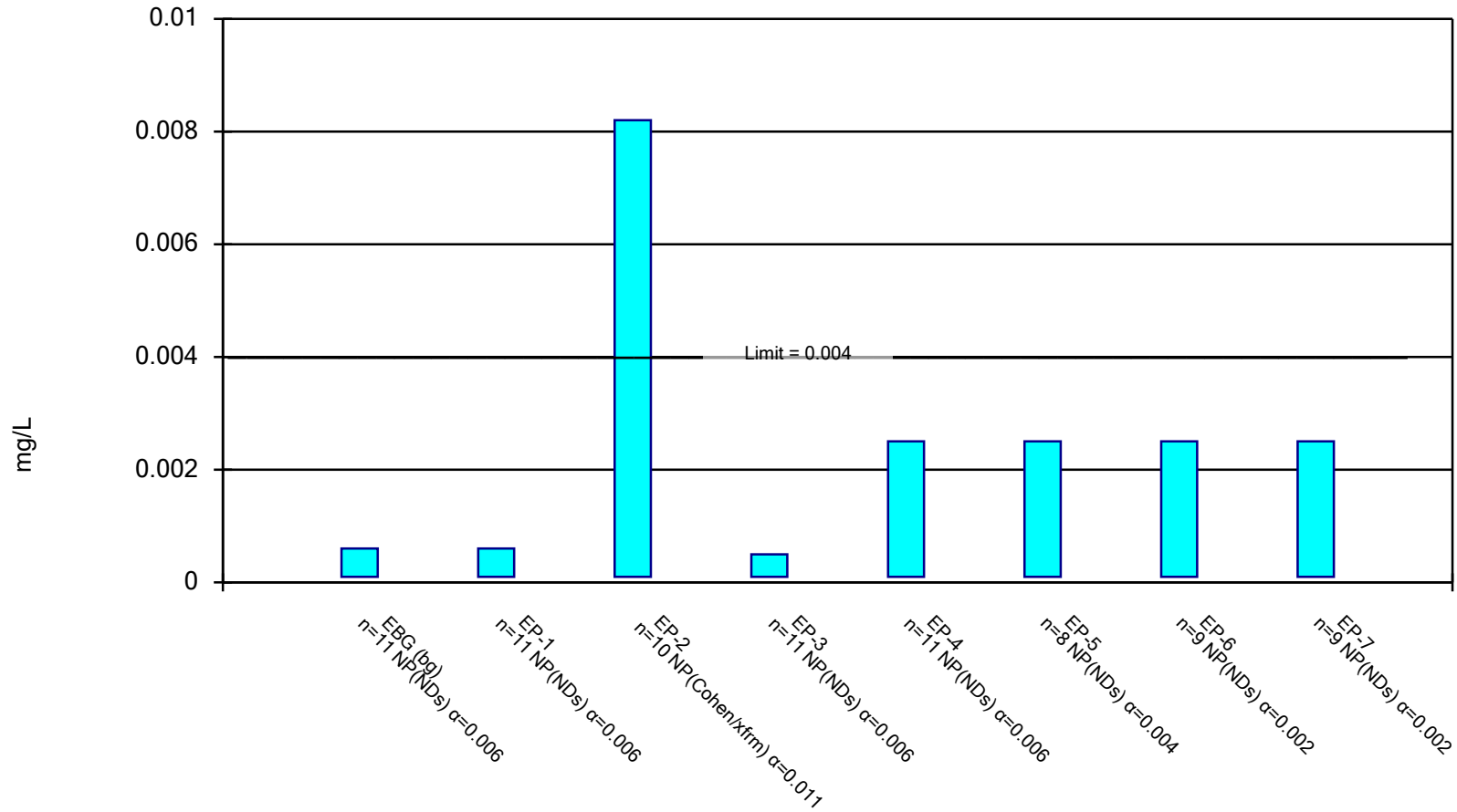


Constituent: Barium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

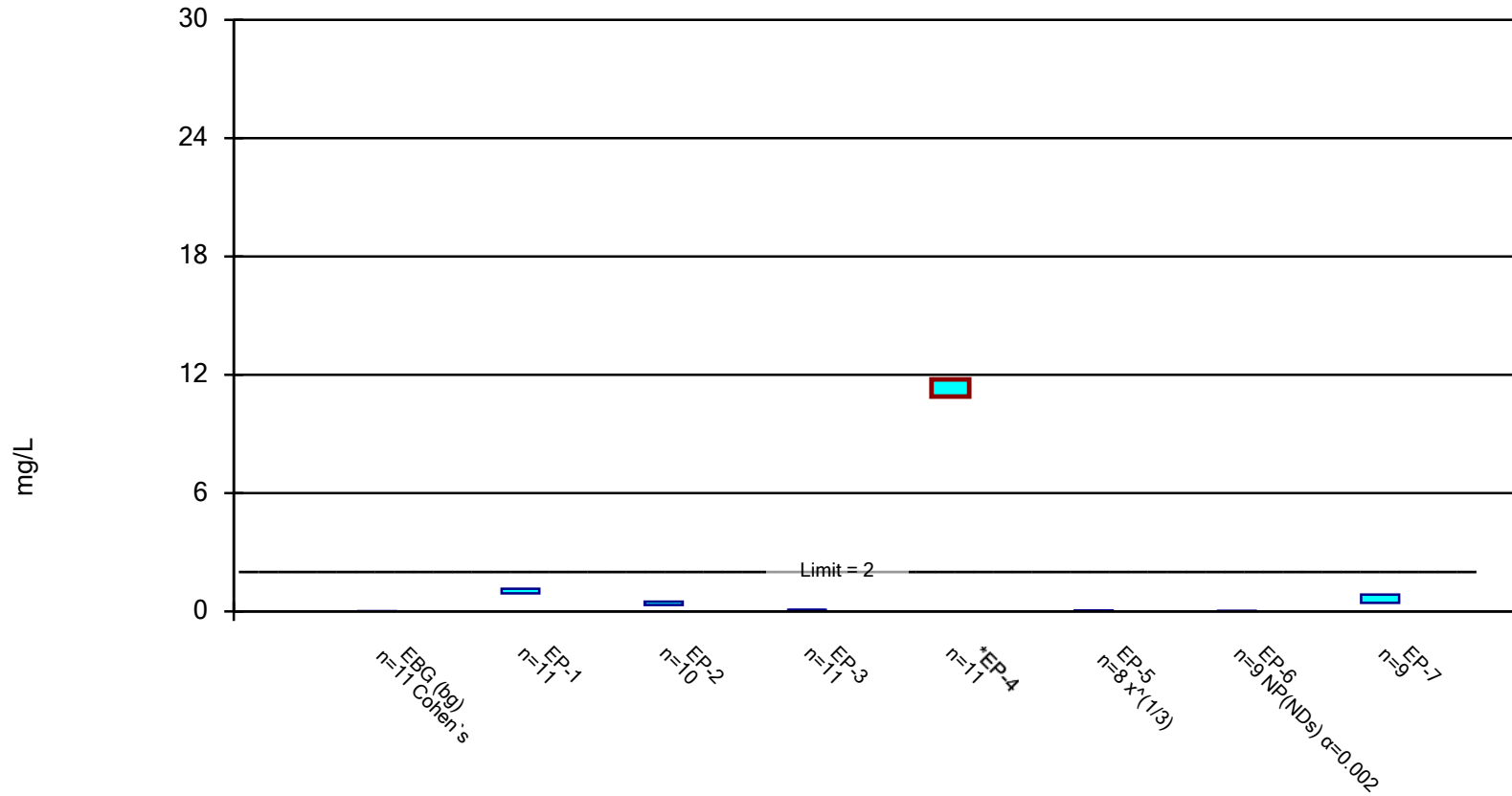


Constituent: Beryllium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

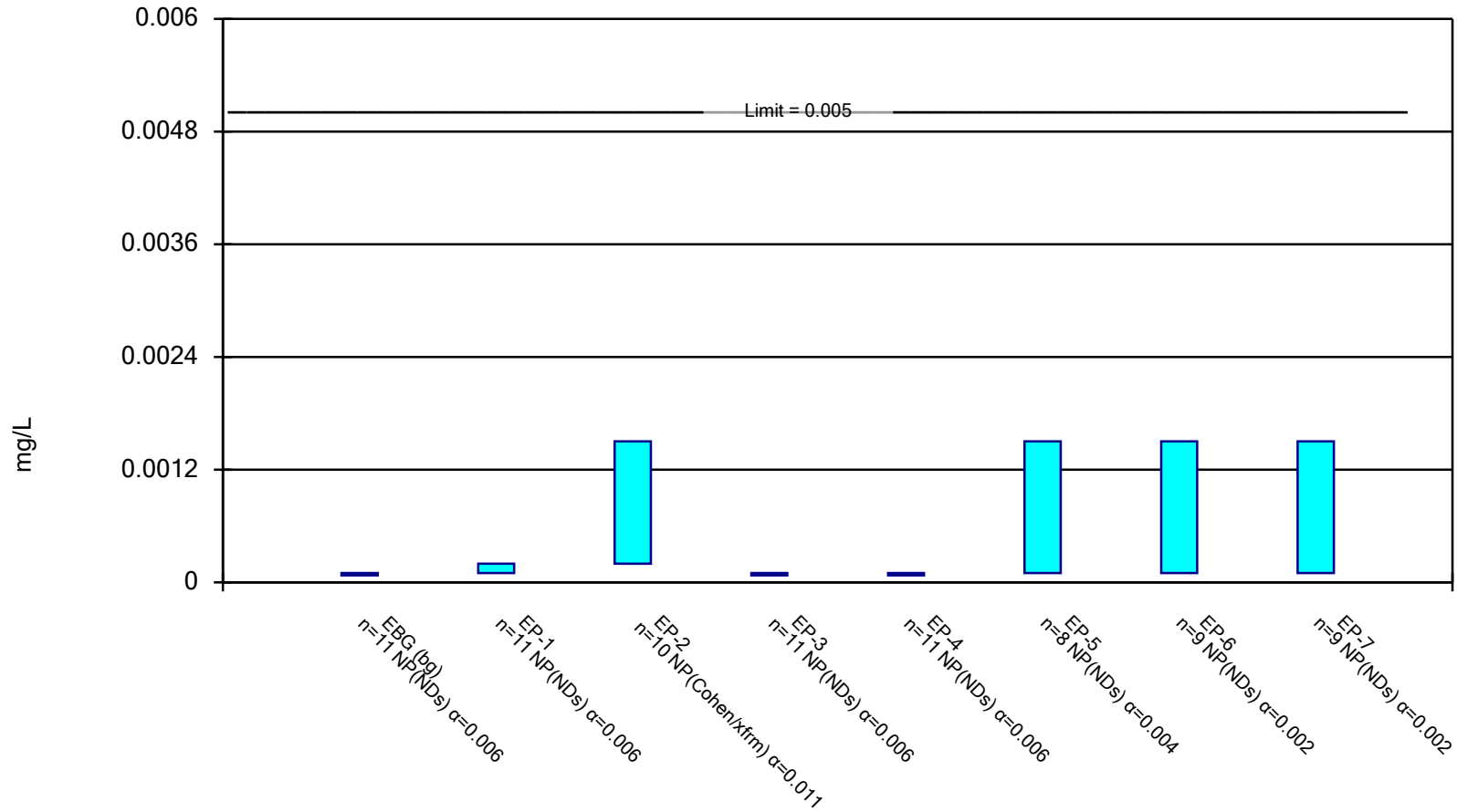


Constituent: Boron Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

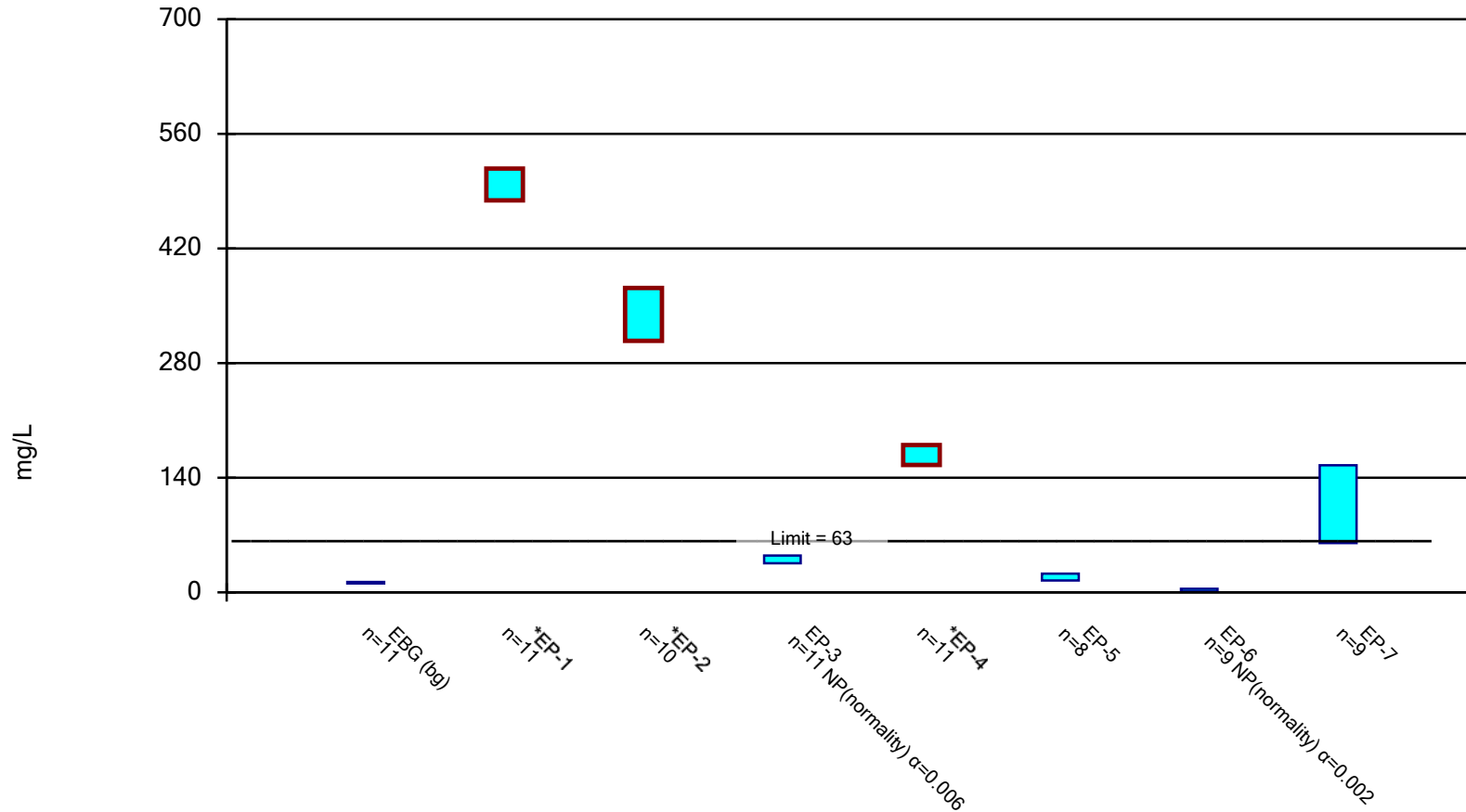


Constituent: Cadmium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



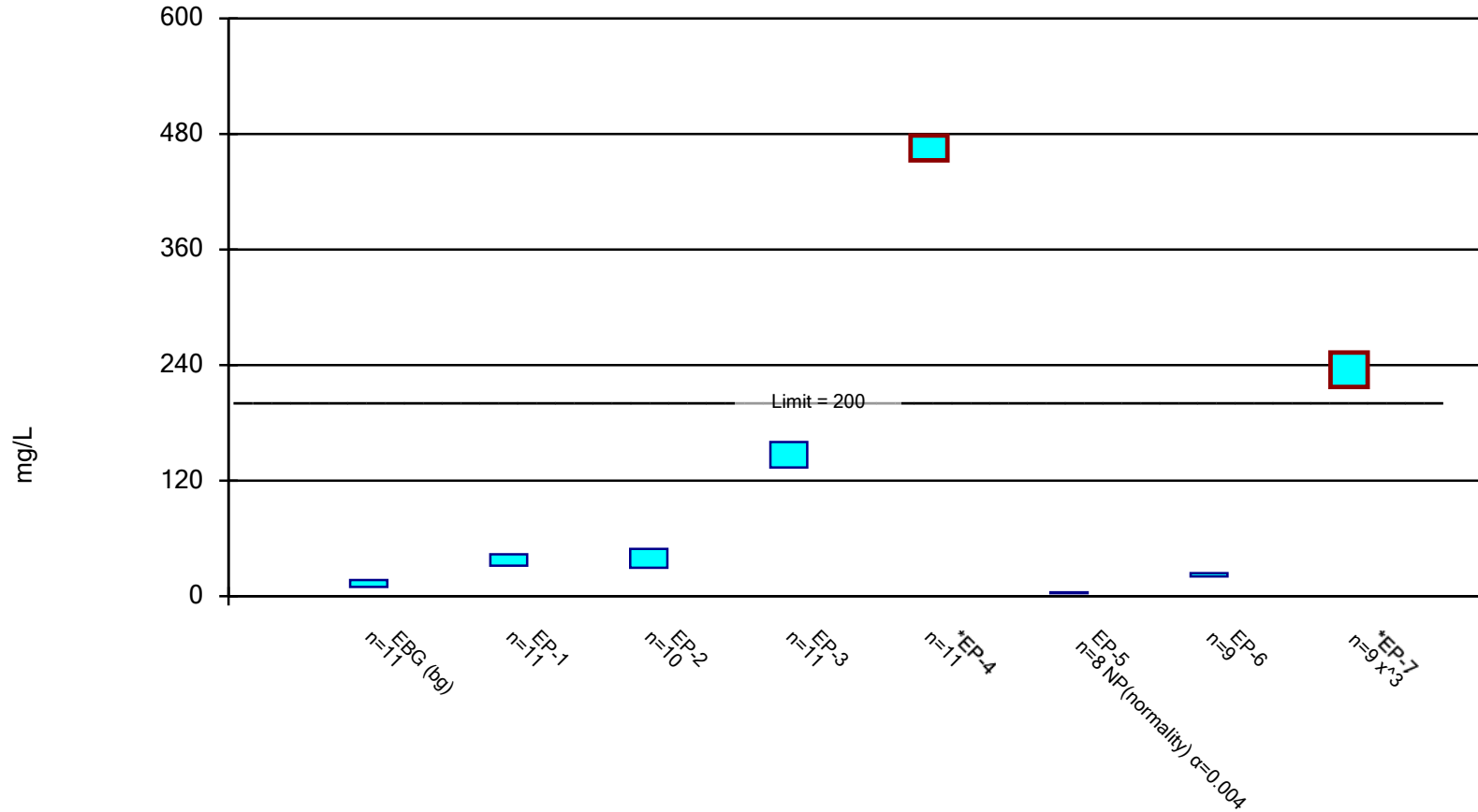
Constituent: Calcium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

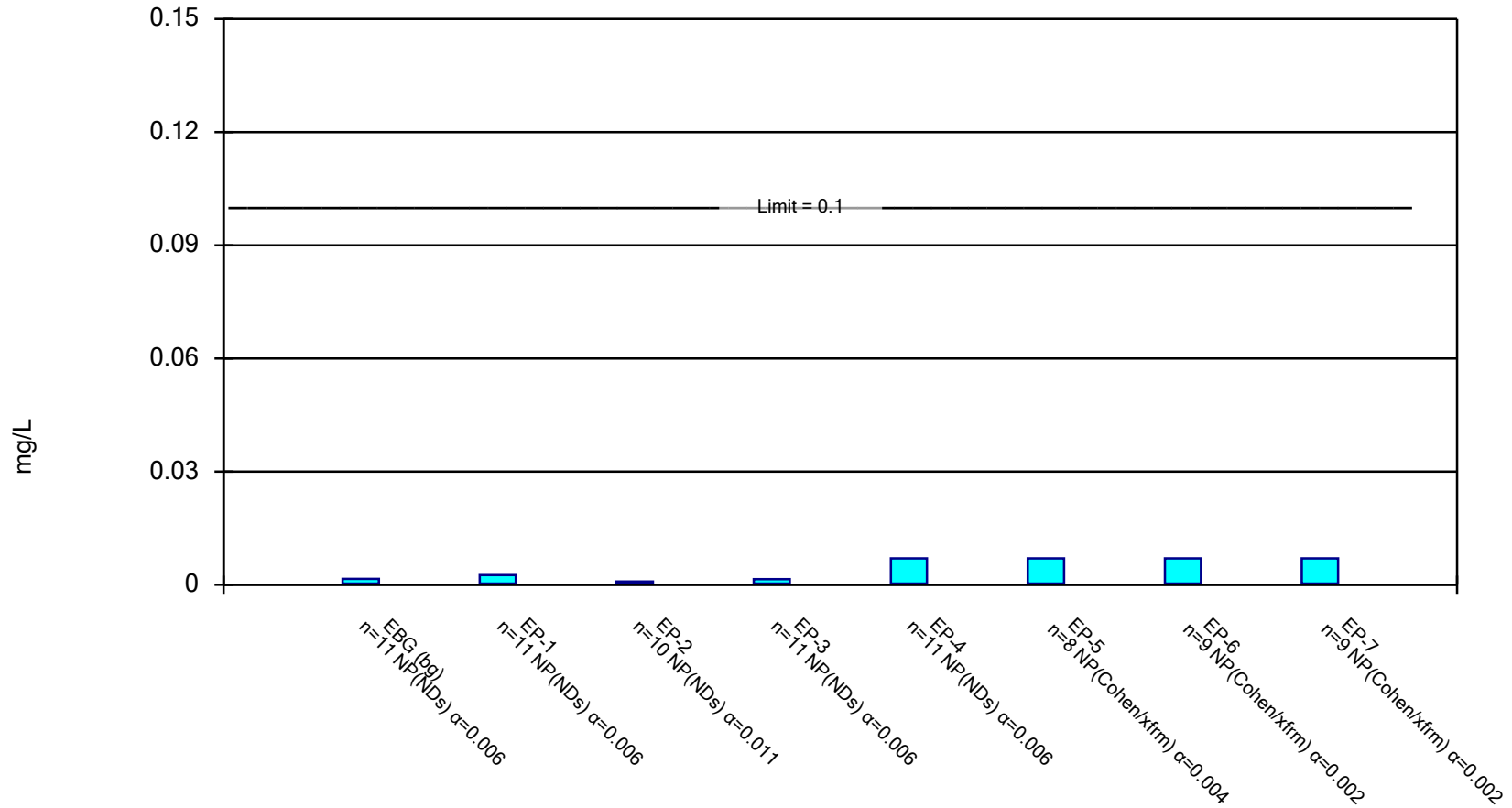


Constituent: Chloride Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

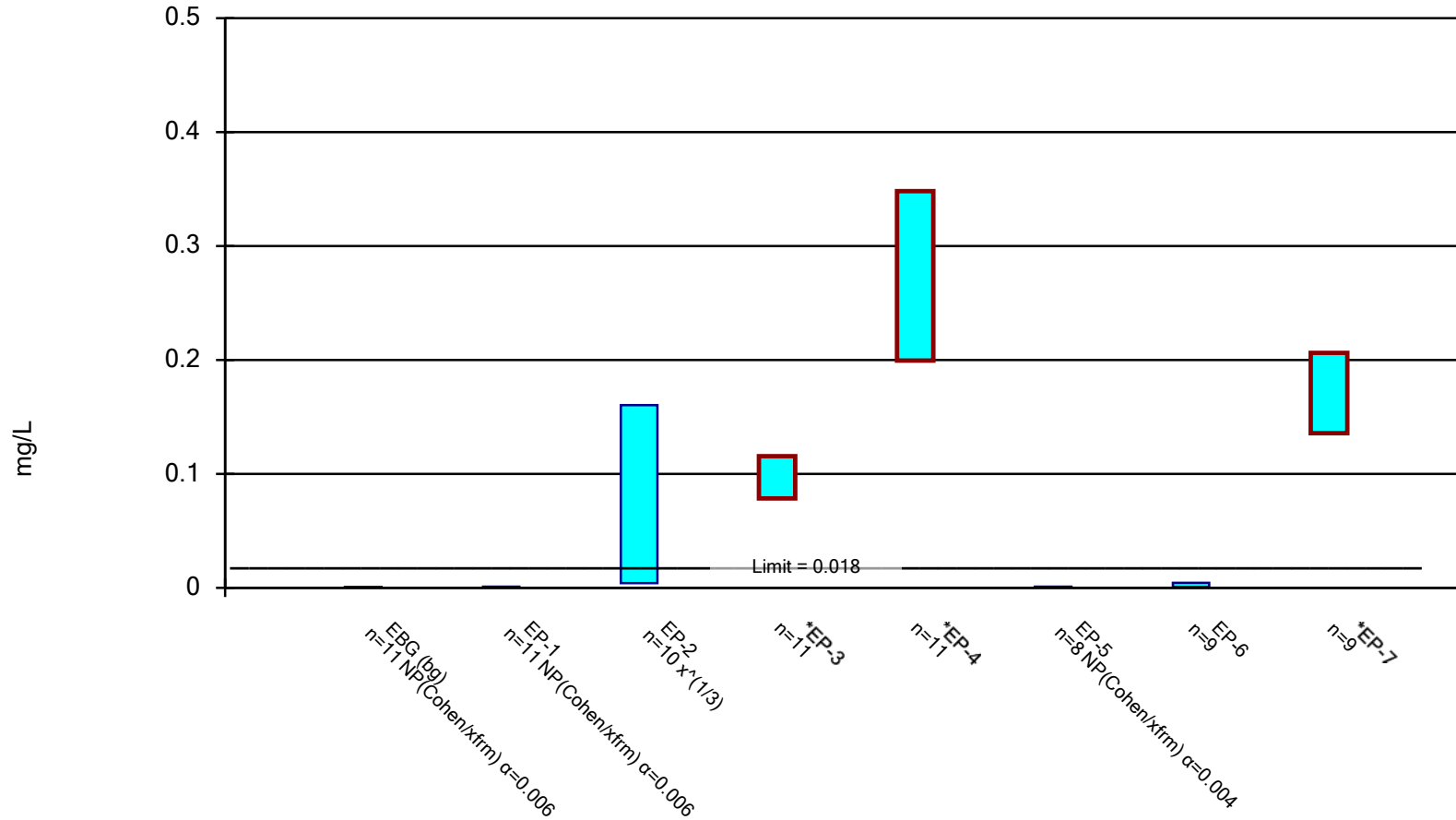


Constituent: Chromium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

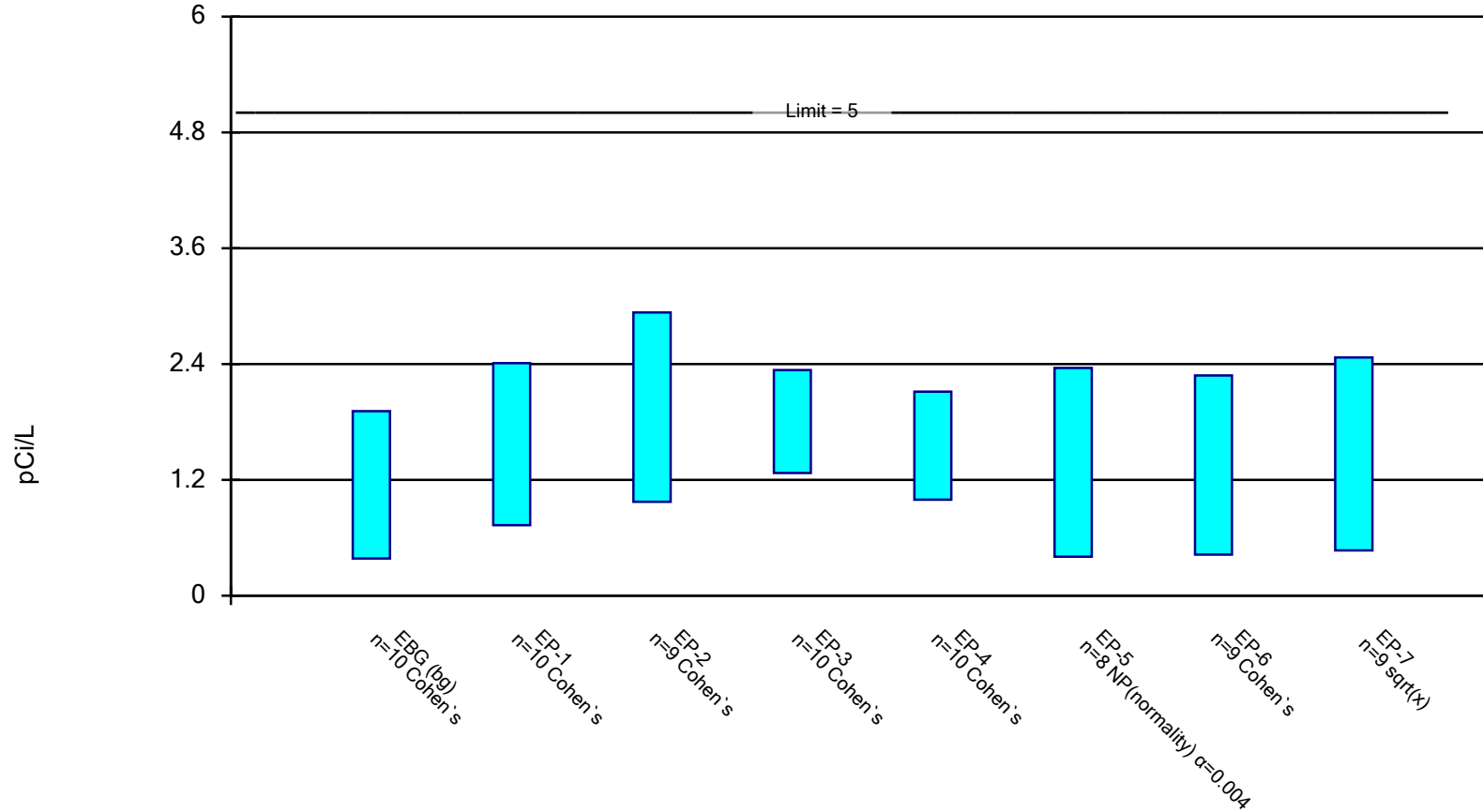


Constituent: Cobalt Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

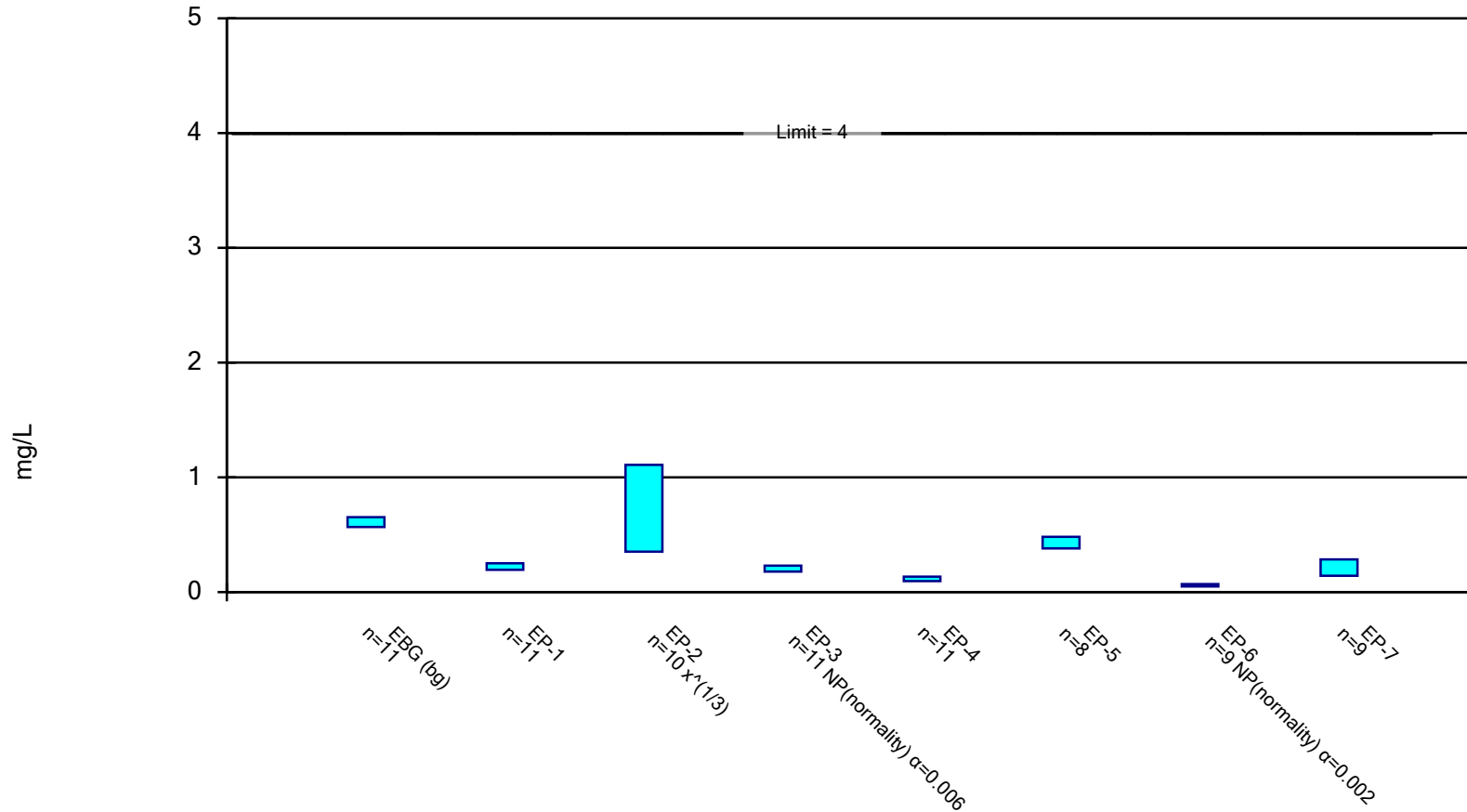


Constituent: Combined Radium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

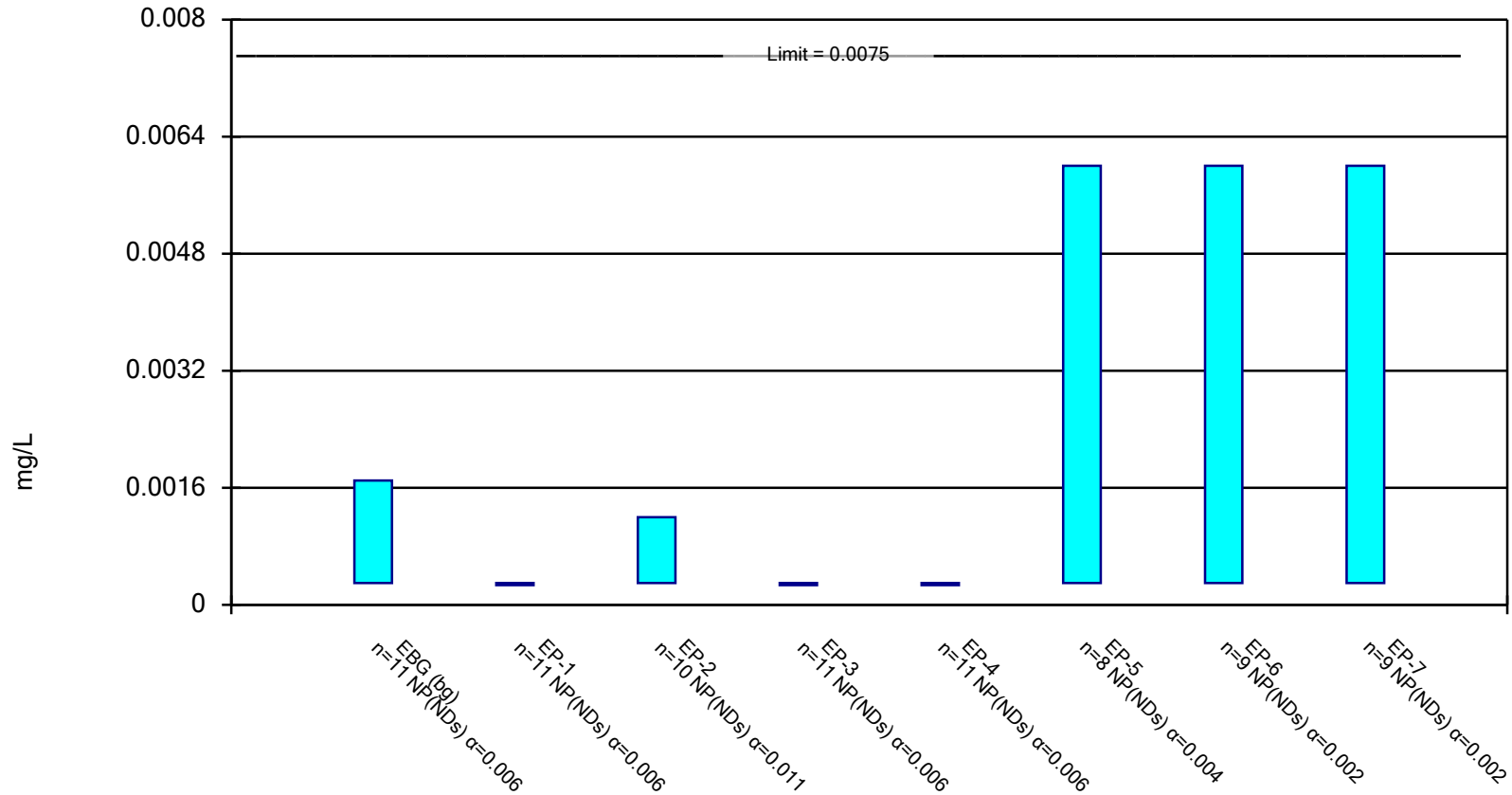


Constituent: Fluoride Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

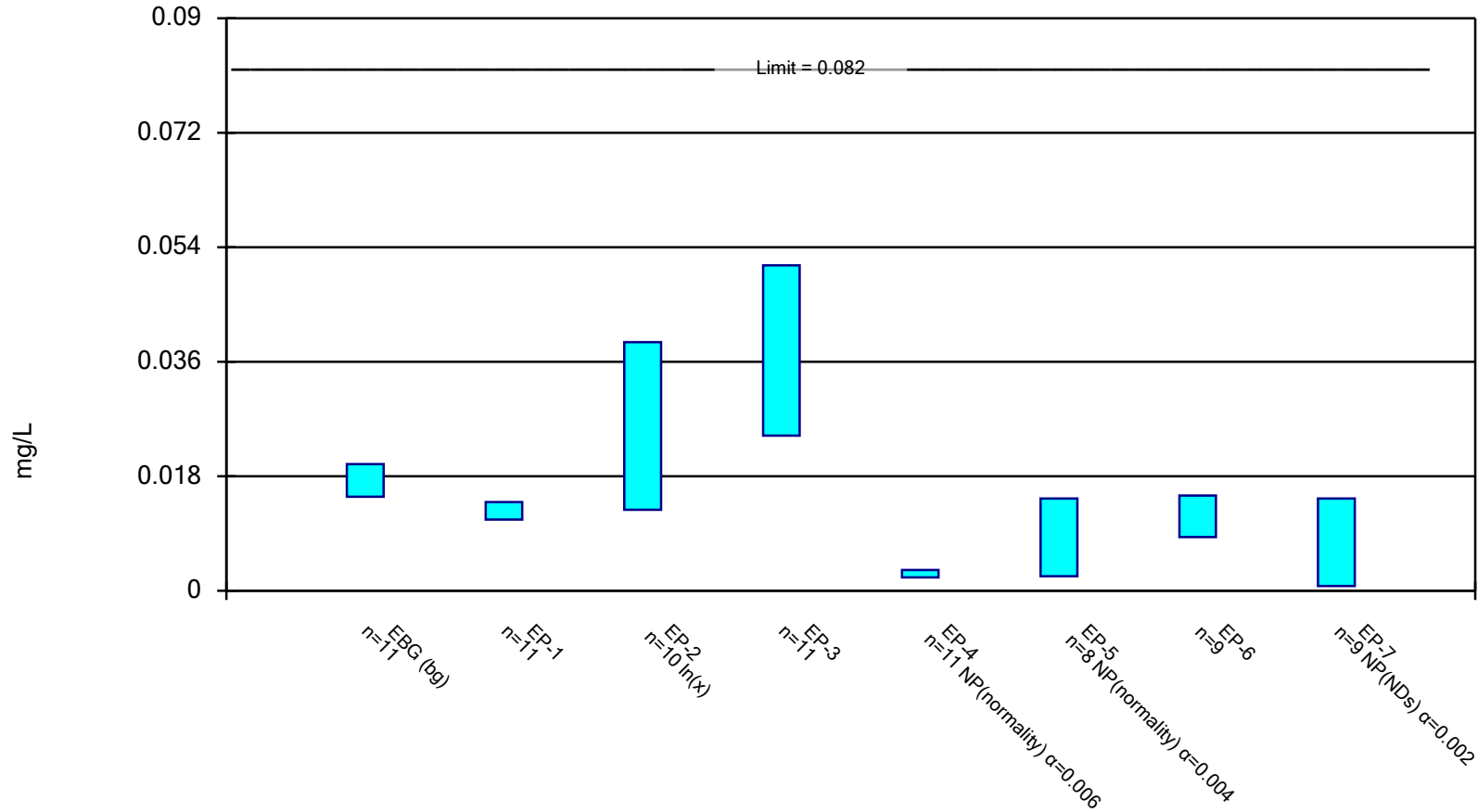


Constituent: Lead Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

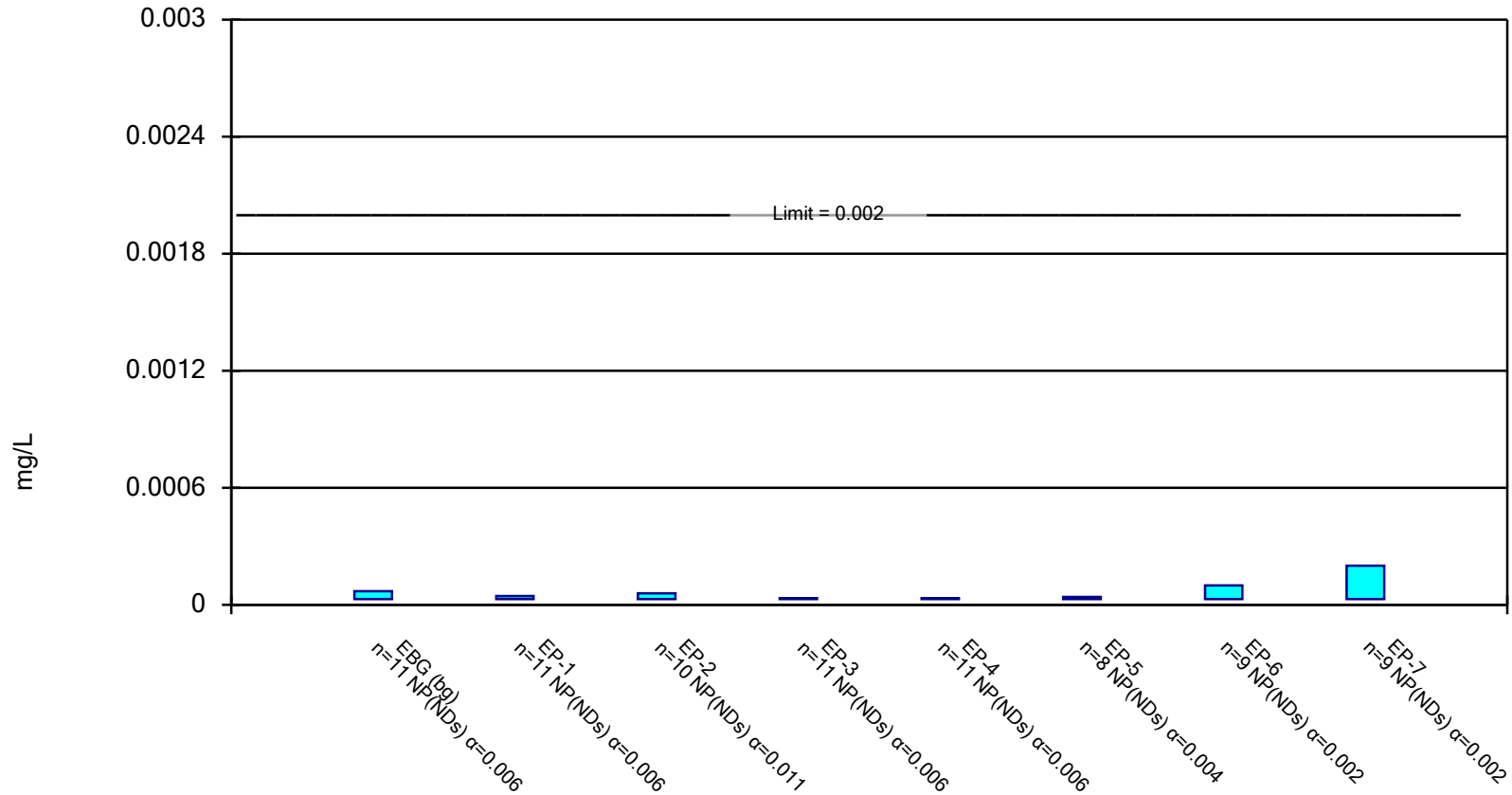


Constituent: Lithium    Analysis Run 2/2/2024 4:57 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database outliers flagged



# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

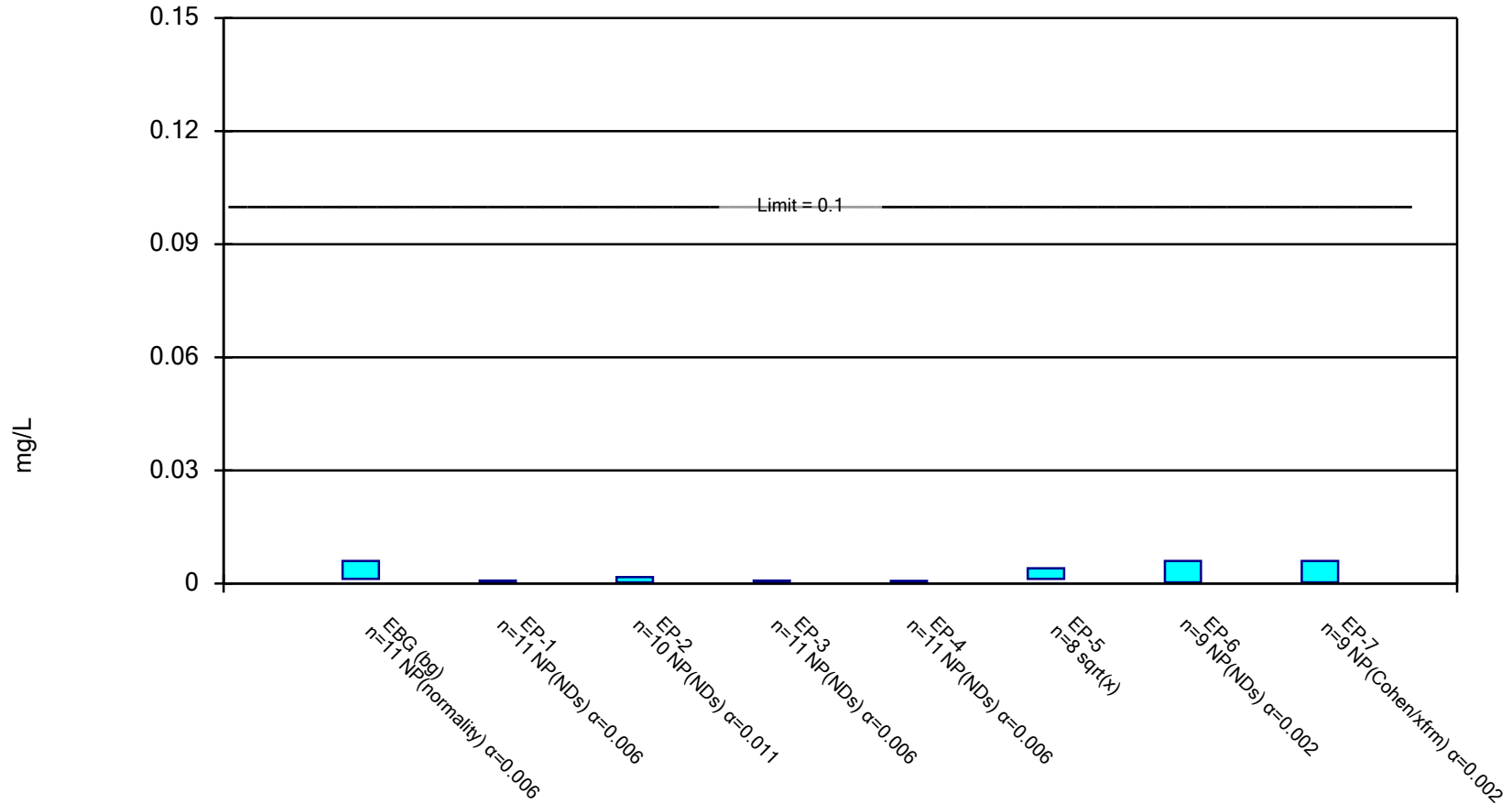


Constituent: Mercury Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

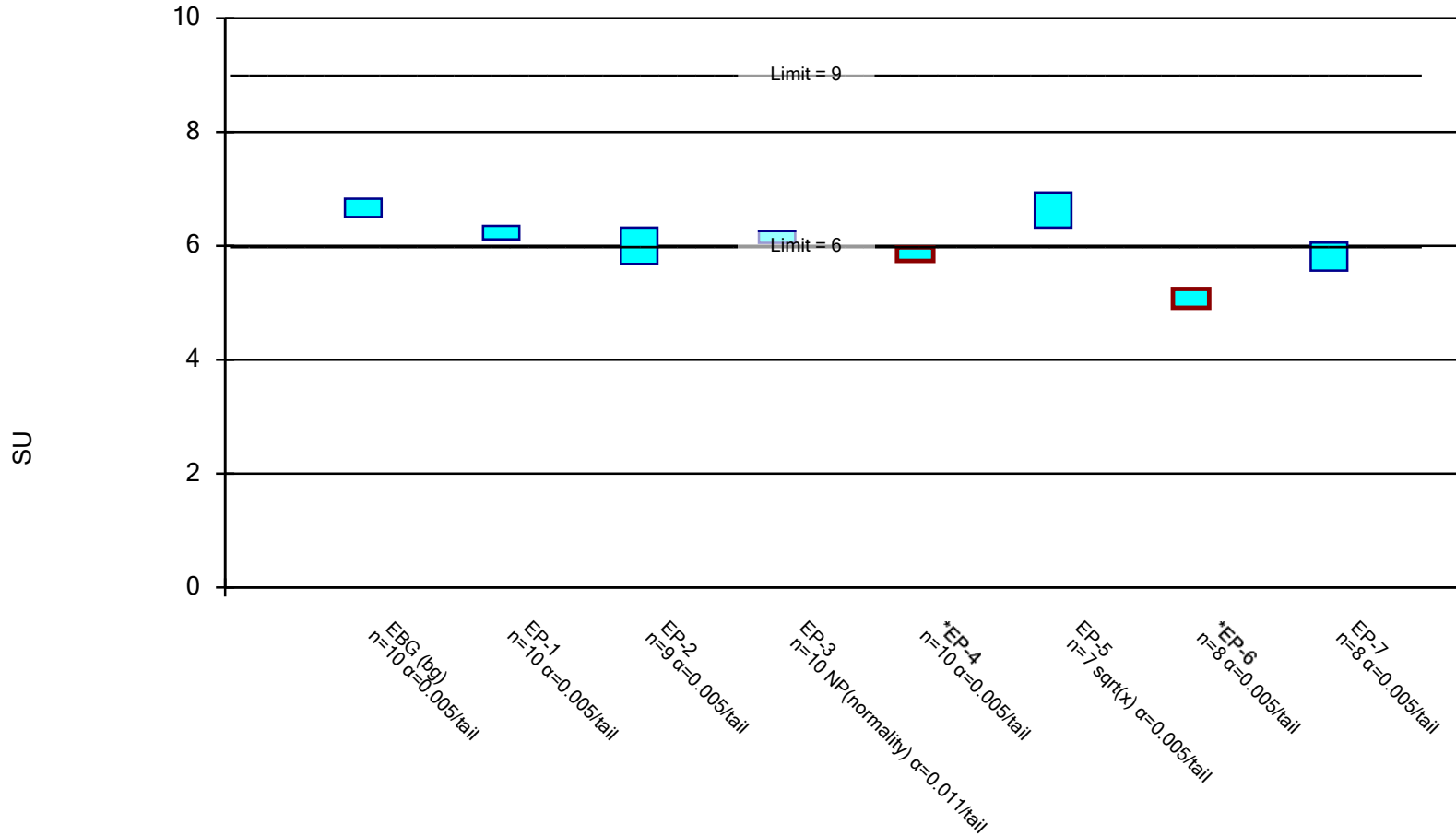


Constituent: Molybdenum Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Normality Test: Shapiro Wilk, alpha based on n.

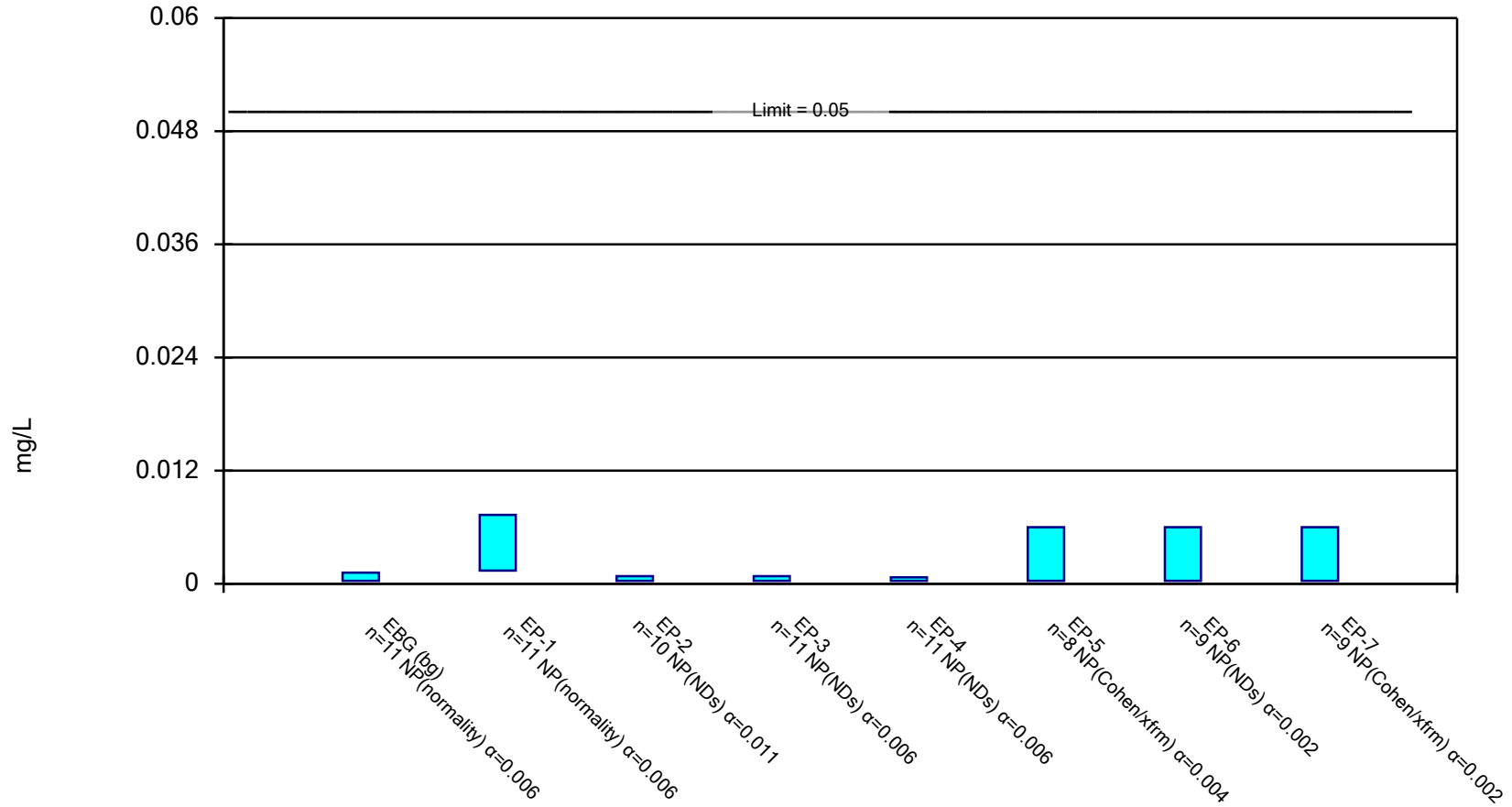


Constituent: pH Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

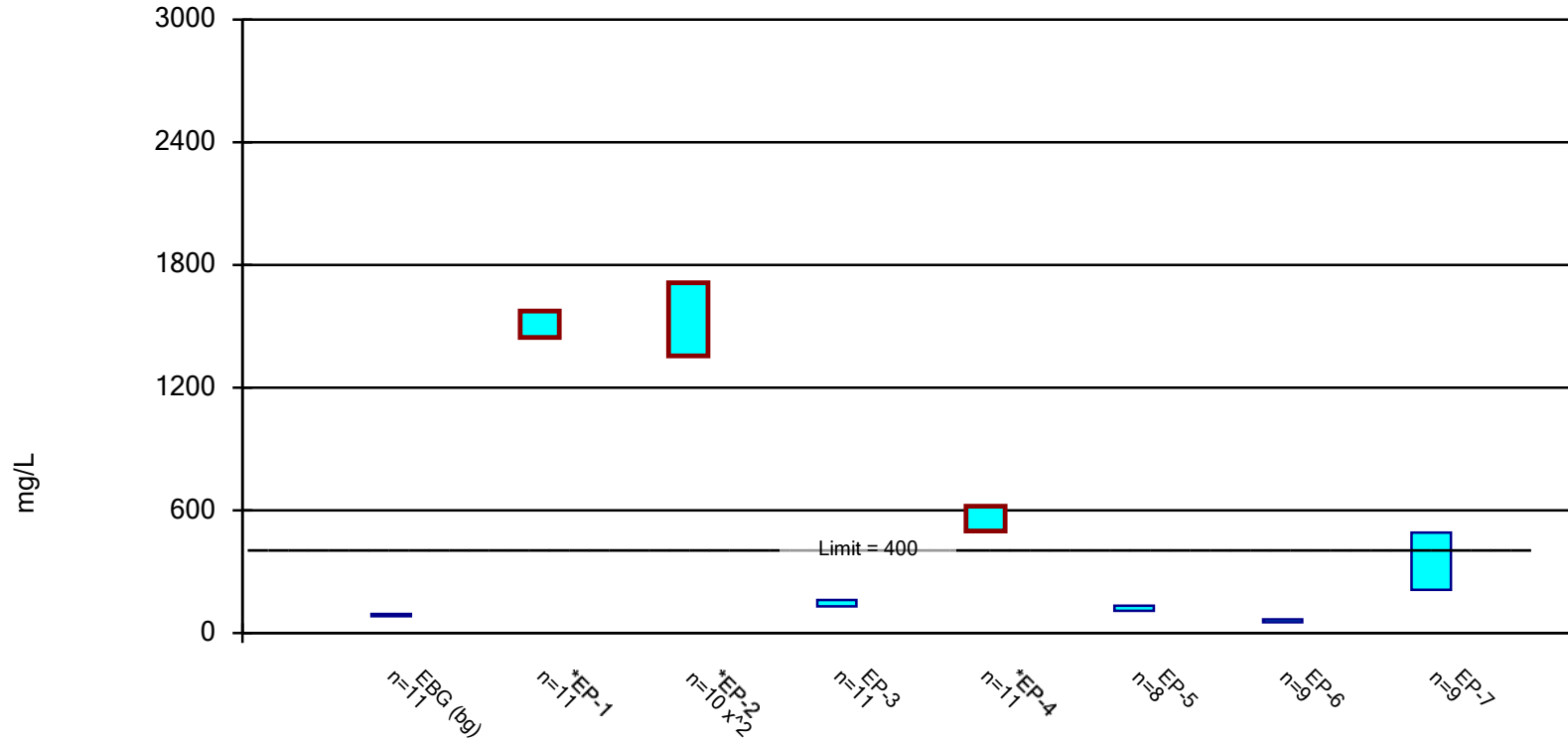


Constituent: Selenium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

### Parametric Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

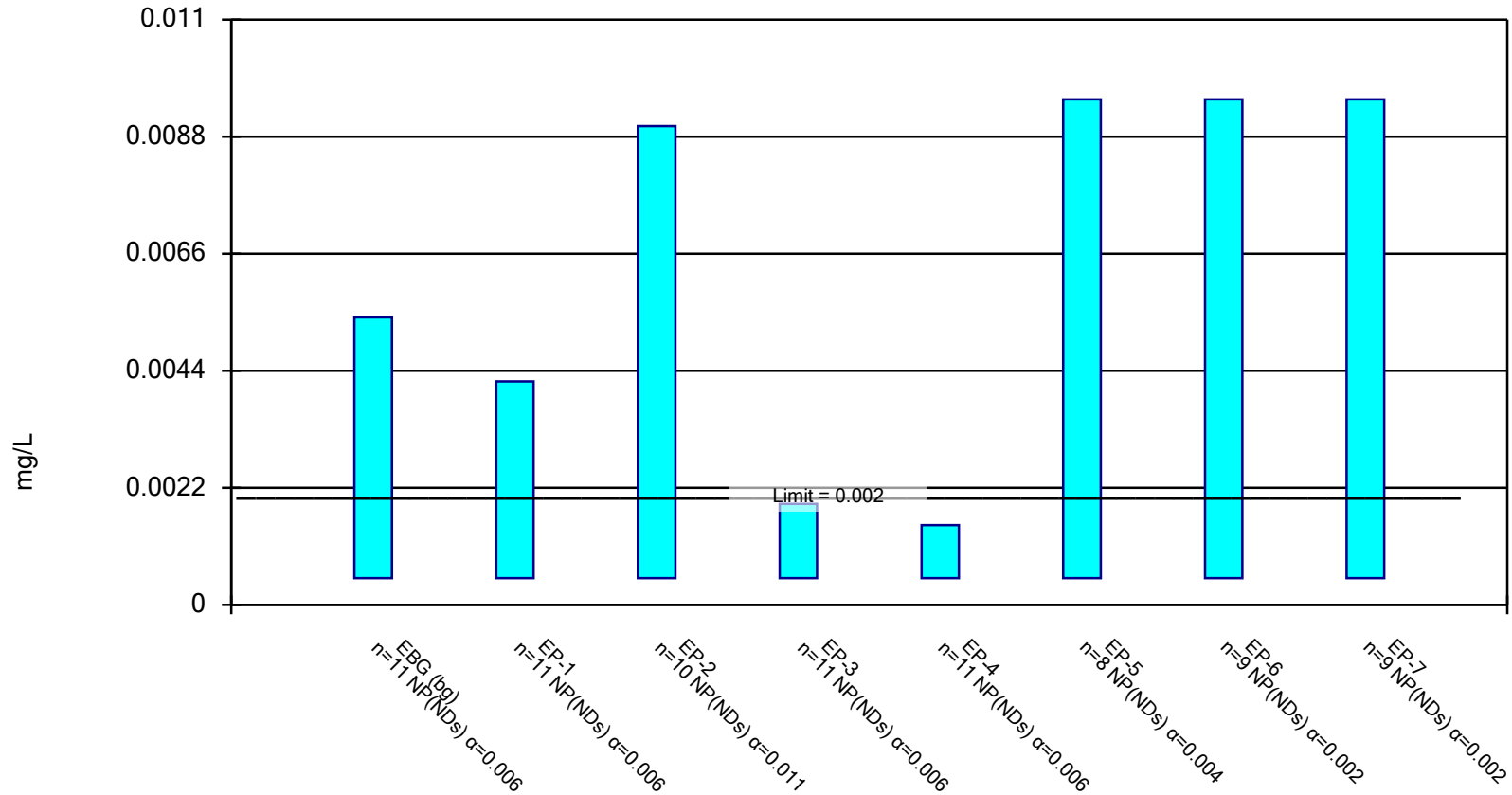


Constituent: Sulfate Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

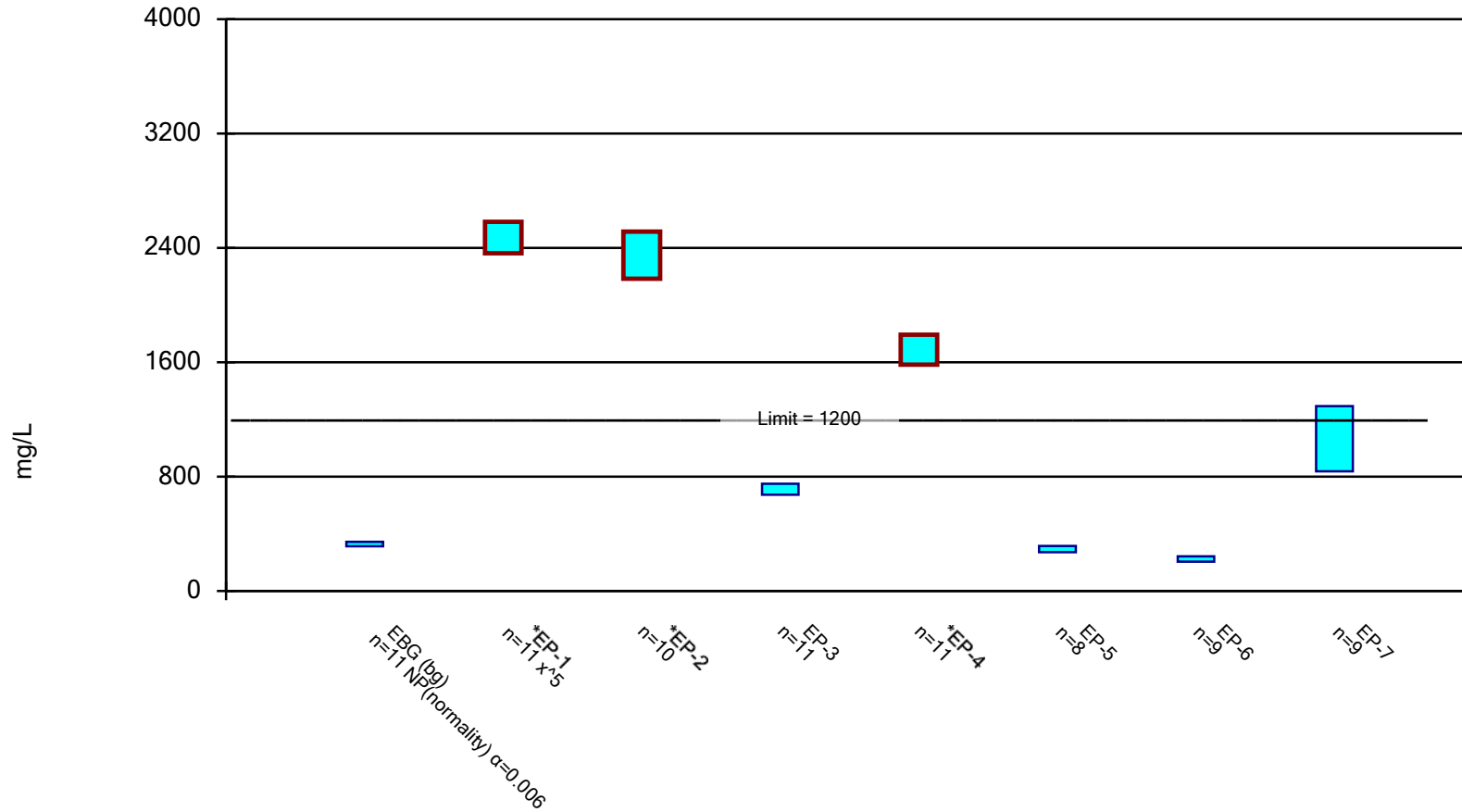


Constituent: Thallium Analysis Run 2/2/2024 4:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Total Dissolved Solids Analysis Run 2/2/2024 4:57 PM

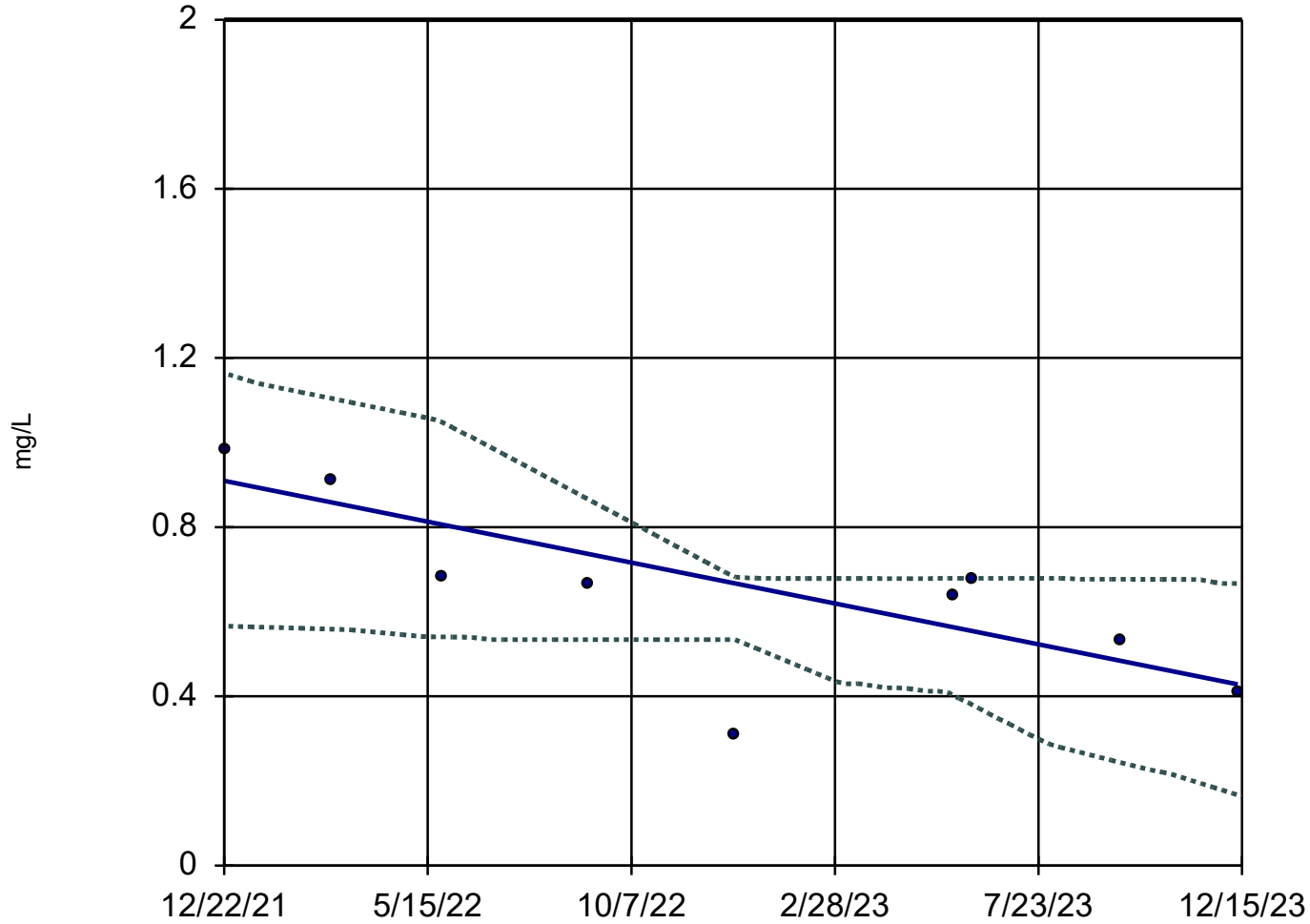
Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged





# Boron

## EP-7



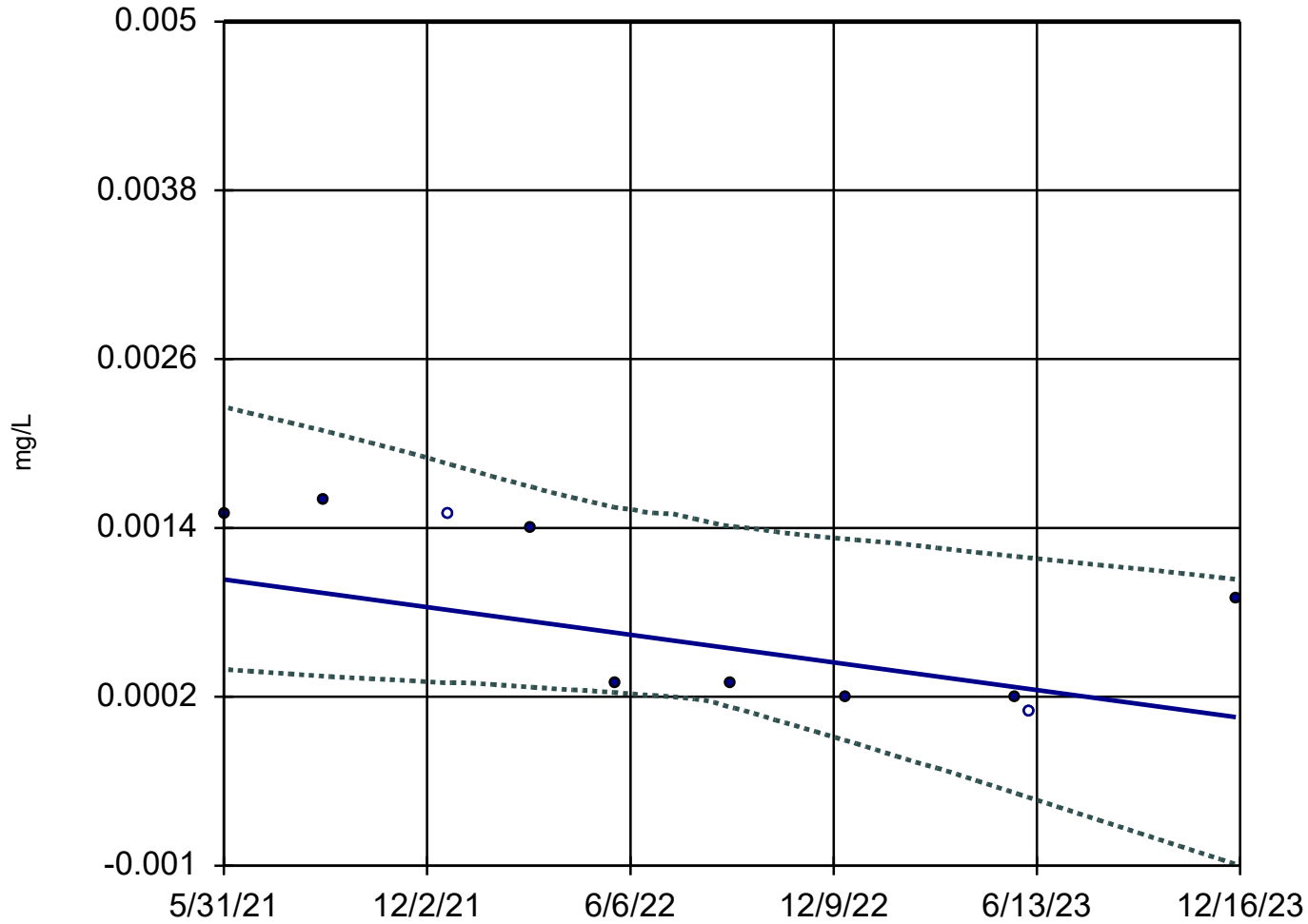
n = 9  
Slope = -0.2441  
units per year.  
Mann-Kendall  
statistic = -24  
critical = -23  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (2).

Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Cadmium

EP-2



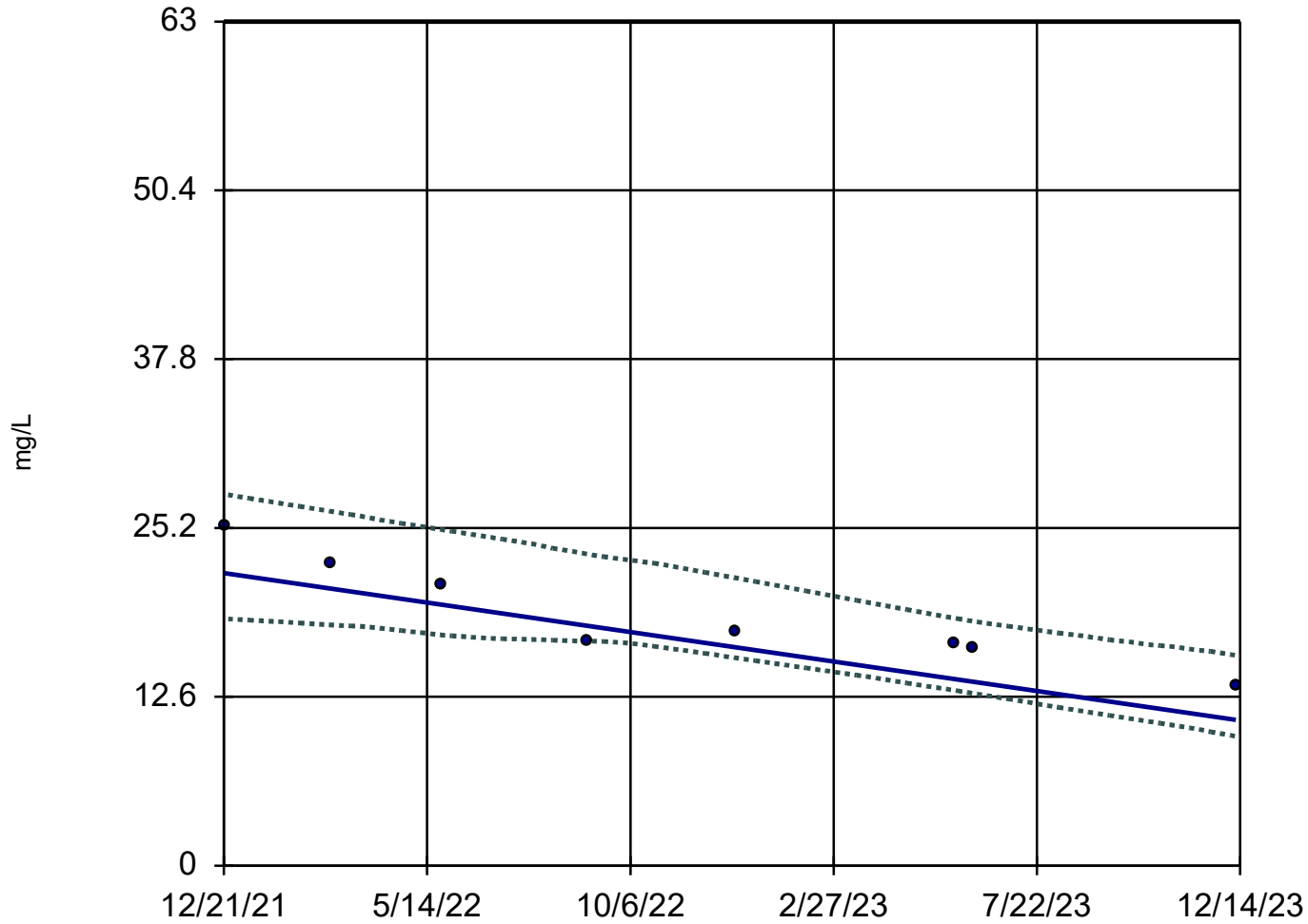
n = 10  
Slope = -0.0003862  
units per year.  
Mann-Kendall  
statistic = -30  
critical = -27  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (0.005).

Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Calcium

## EP-5



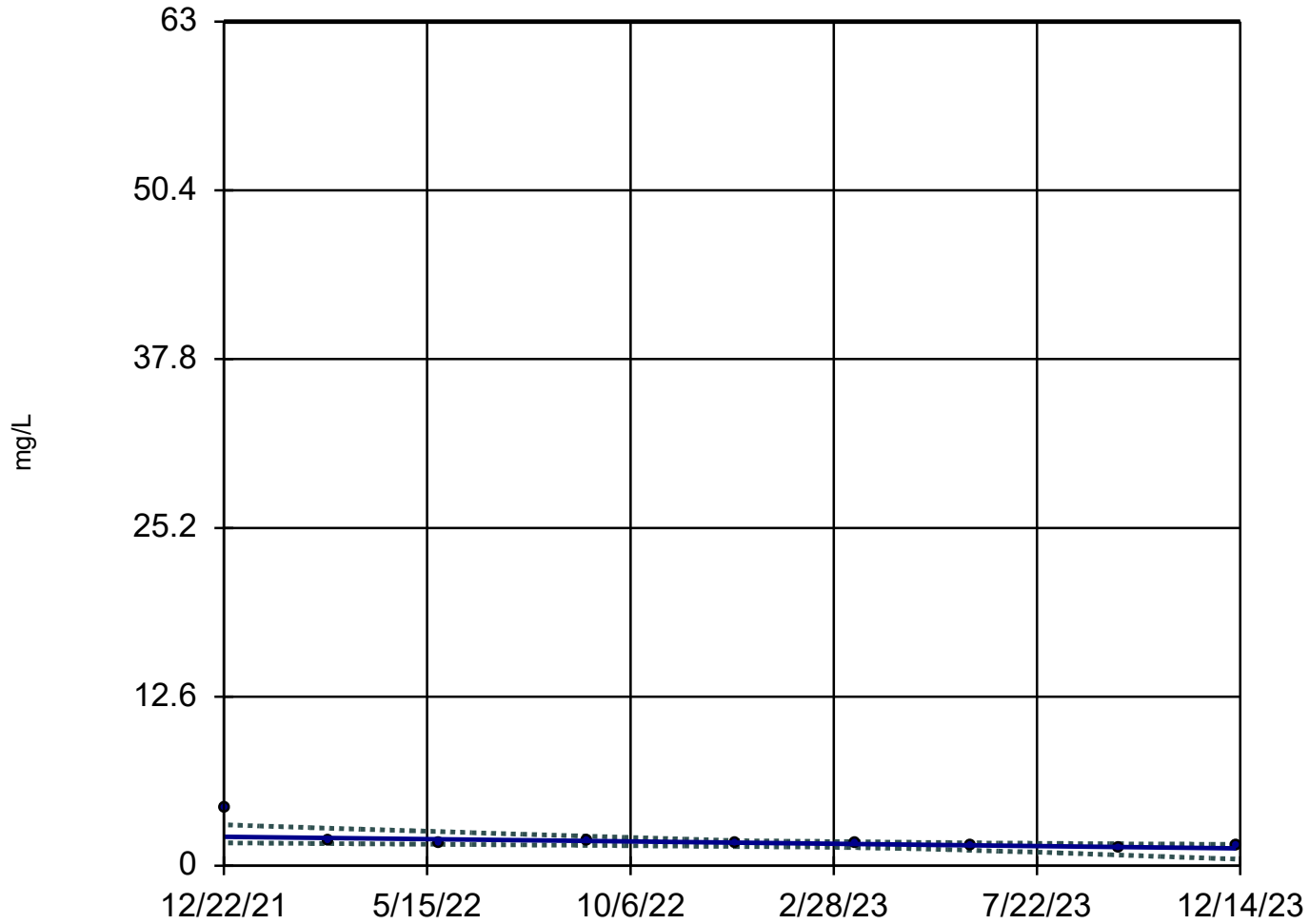
n = 8  
Slope = -5.547  
units per year.  
Mann-Kendall  
statistic = -26  
critical = -20  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (63).

Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Calcium

## EP-6



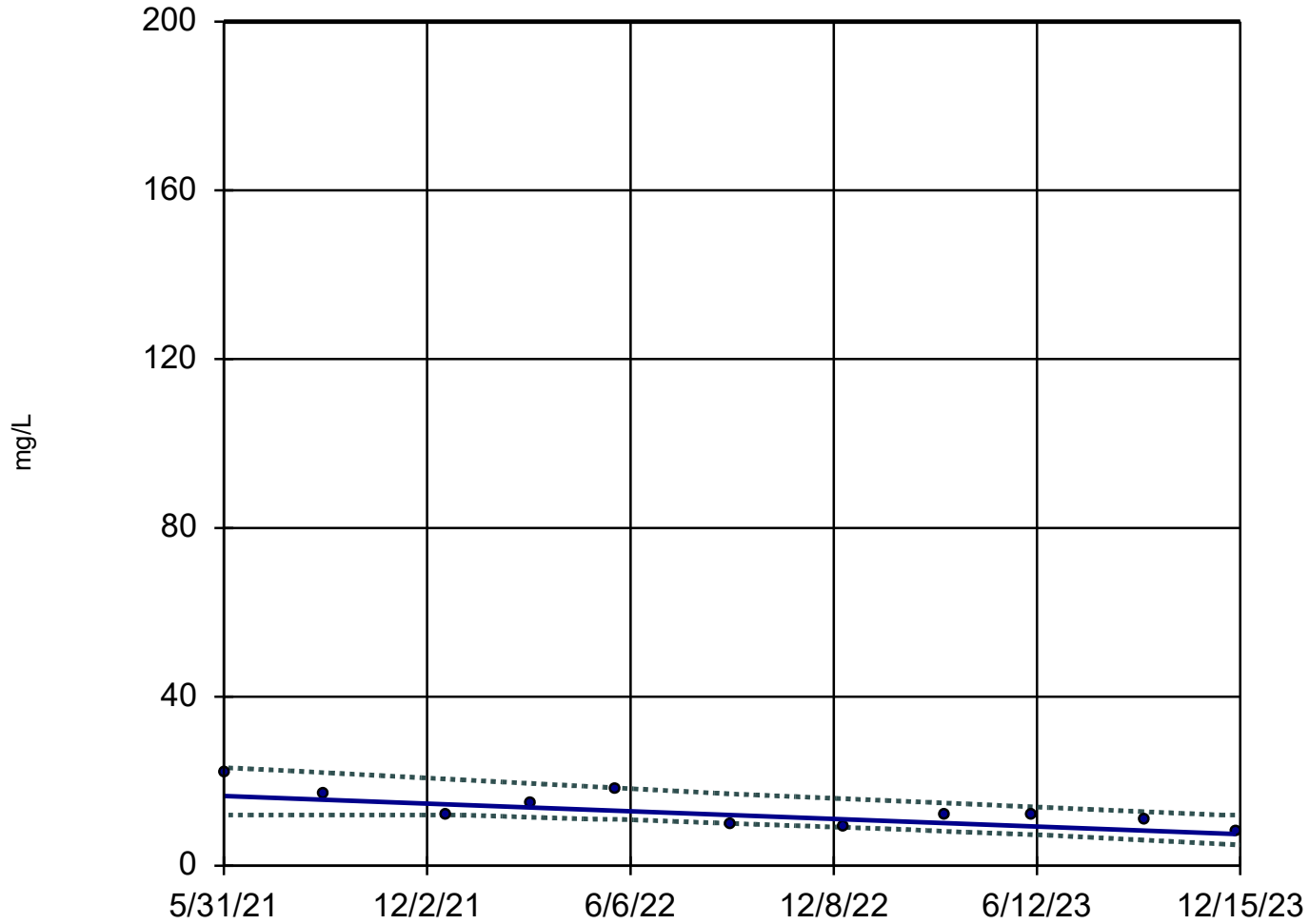
n = 9  
Slope = -0.4452  
units per year.  
Mann-Kendall  
statistic = -30  
critical = -23  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (63).

Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Chloride

EBG (bg)



n = 11

Slope = -3.544  
units per year.

Mann-Kendall  
statistic = -32  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

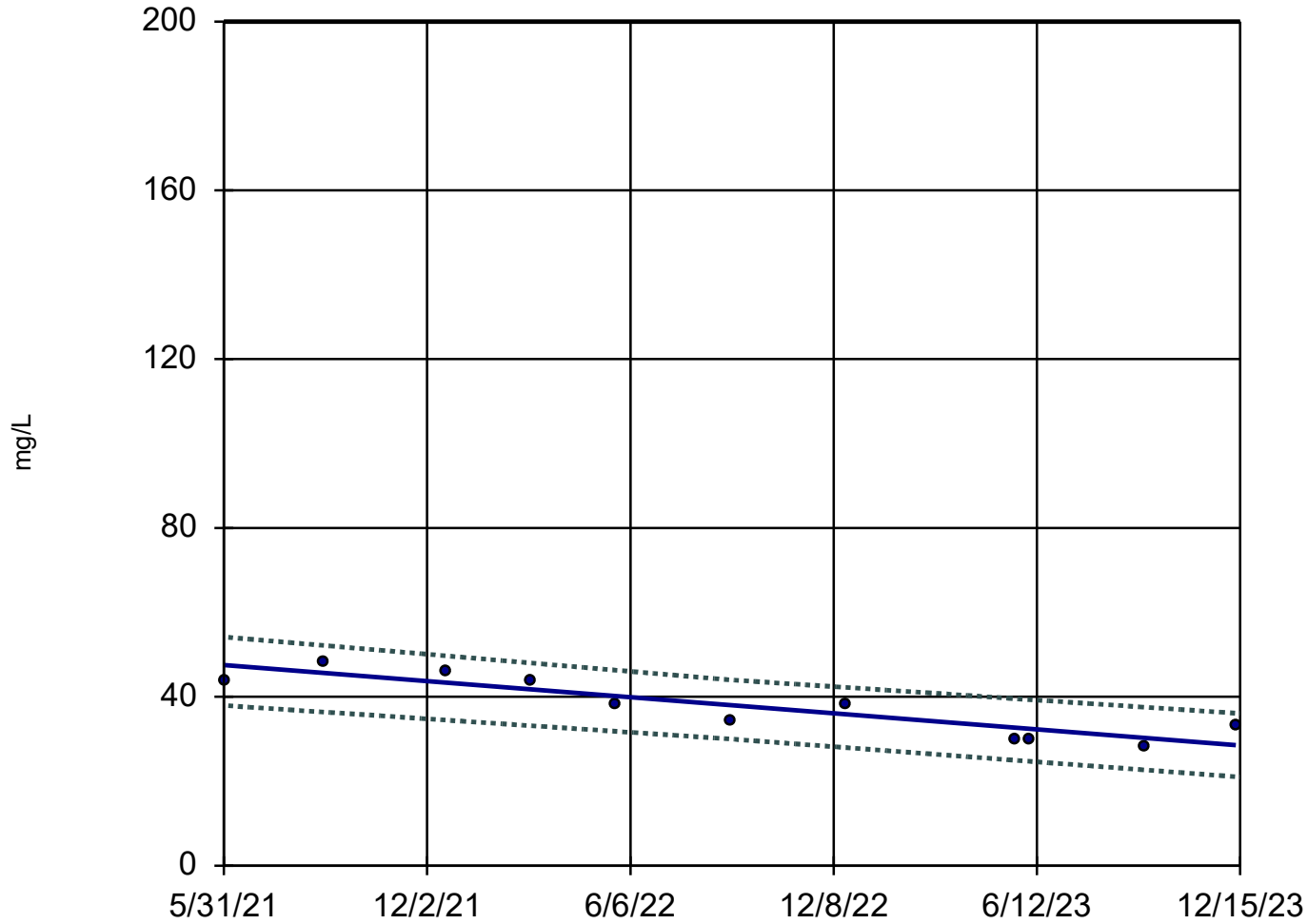
Confidence band is  
below (200).

Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Chloride

## EP-1



n = 11

Slope = -7.489  
units per year.

Mann-Kendall  
statistic = -40  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
below (200).

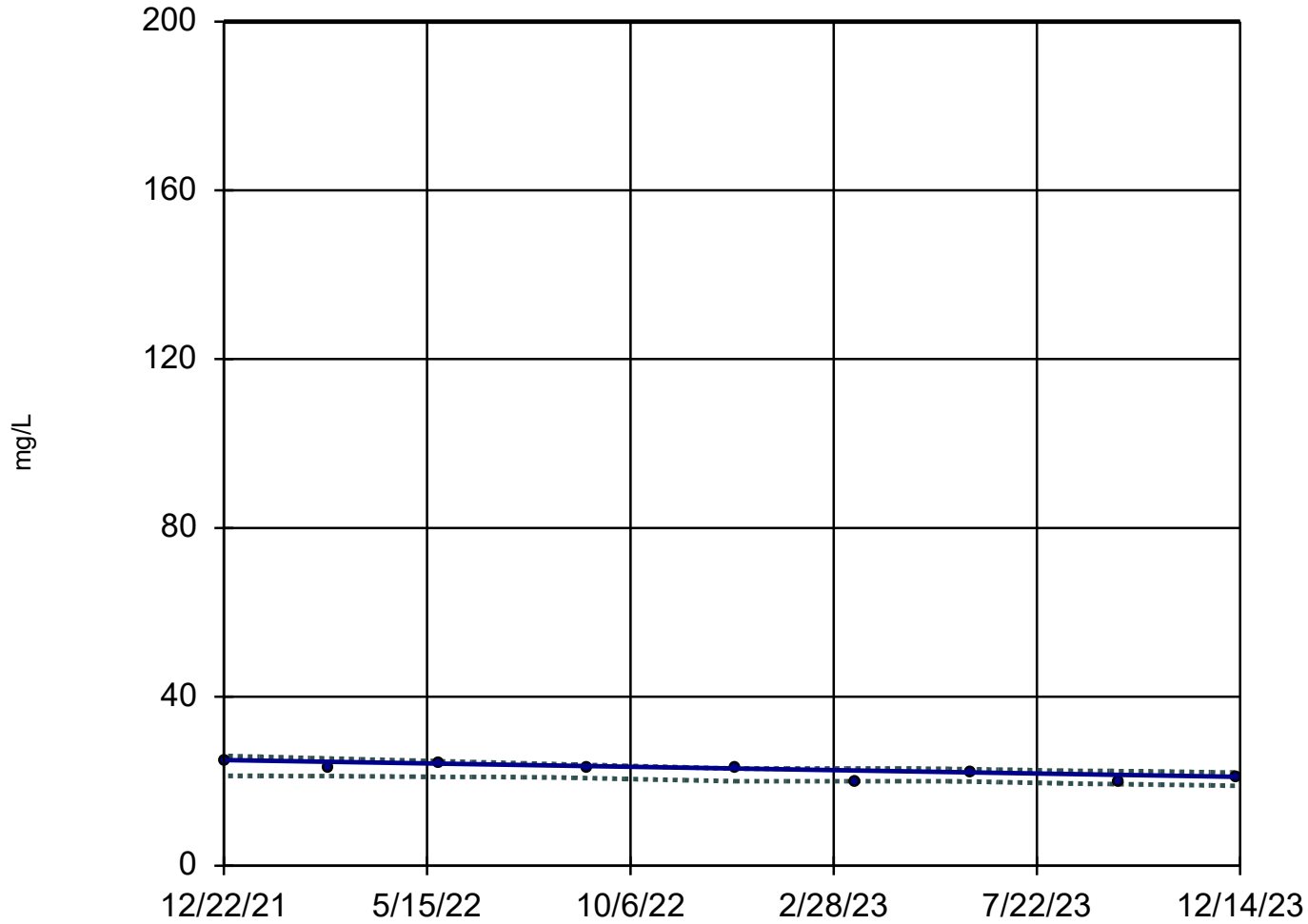
Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged



# Chloride

## EP-6



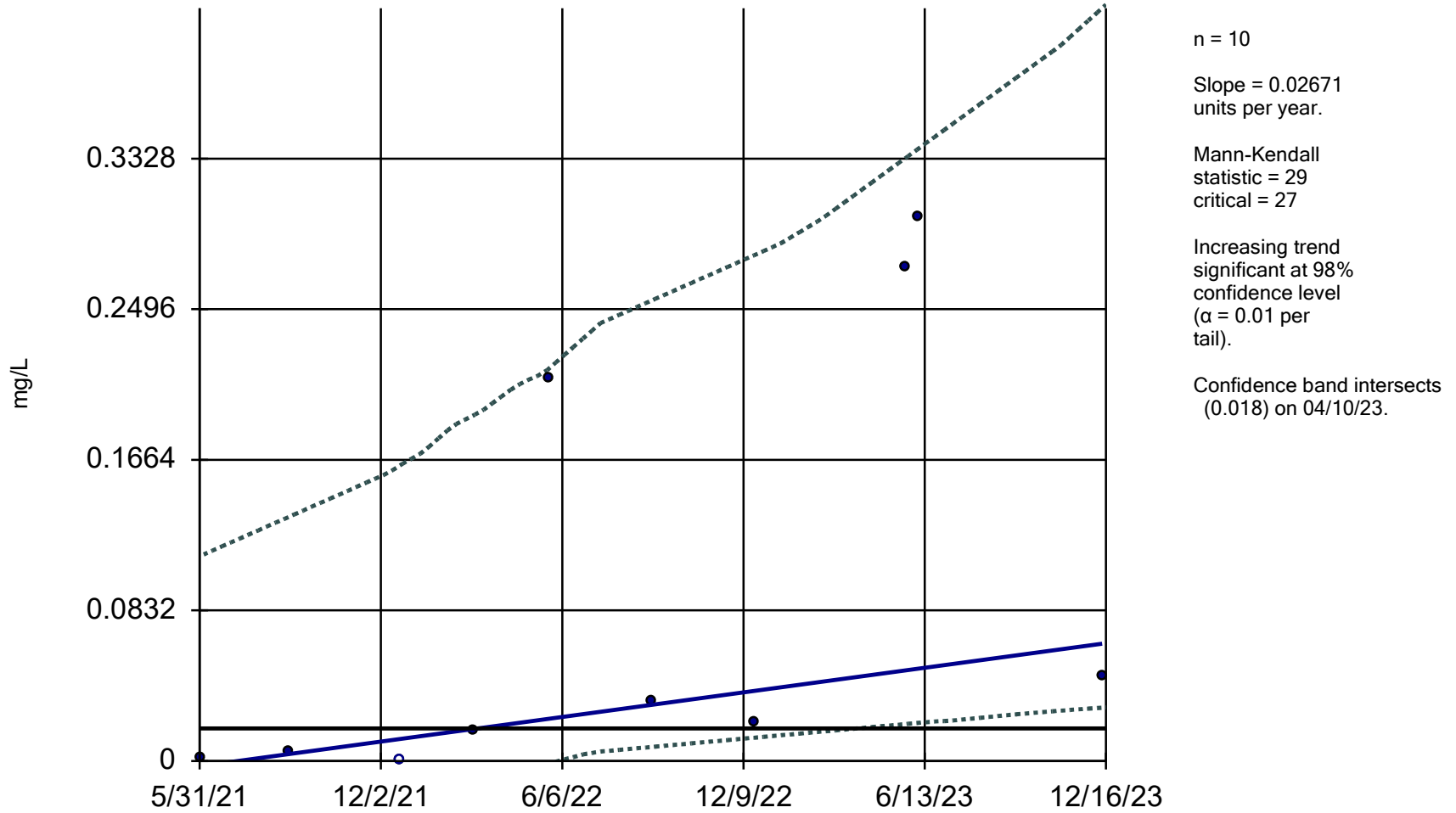
n = 9  
Slope = -2.021 units per year.  
Mann-Kendall statistic = -24  
critical = -23  
Decreasing trend significant at 98% confidence level ( $\alpha = 0.01$  per tail).  
Confidence band is below (200).

Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged

# Cobalt

## EP-2



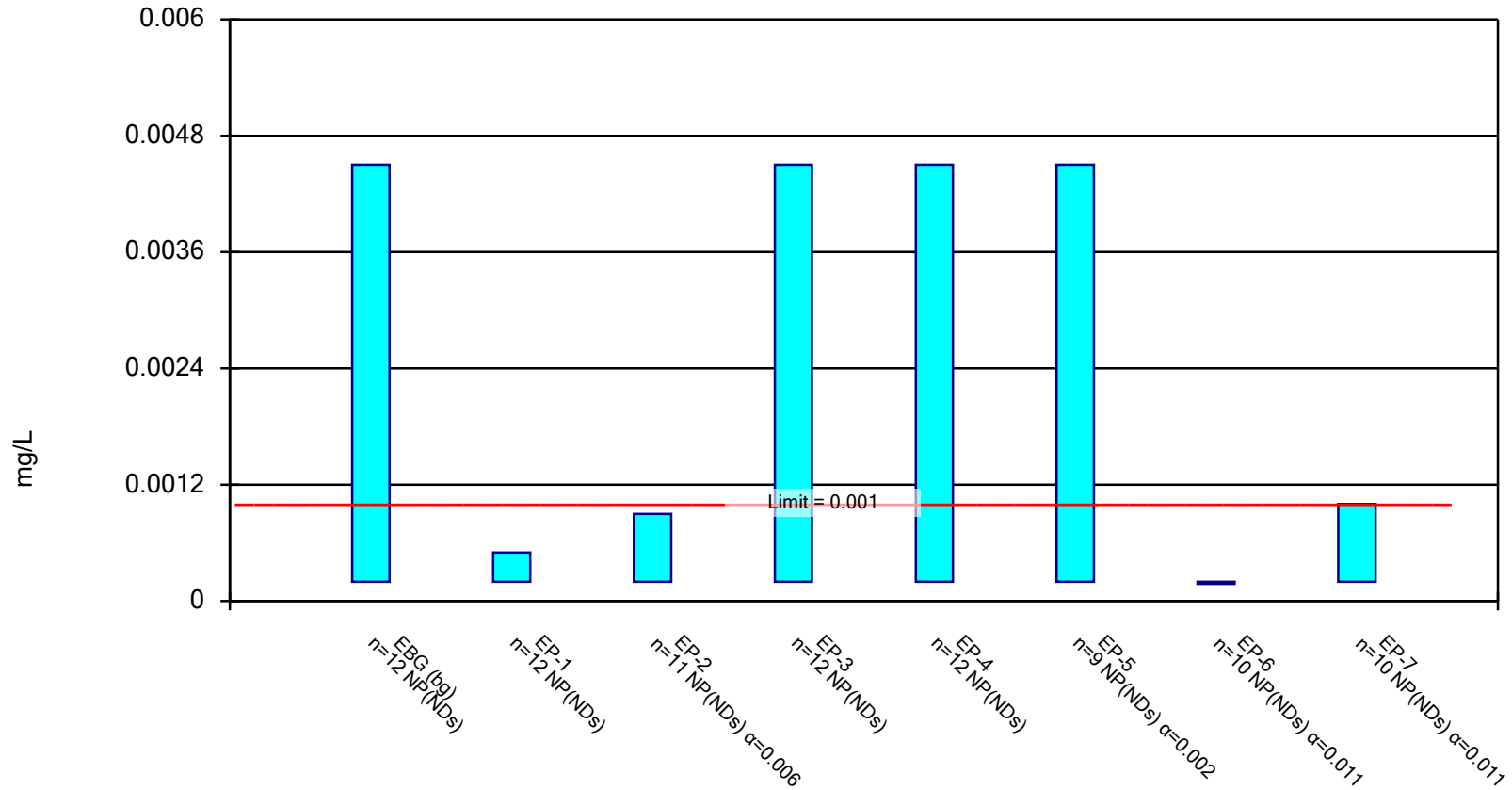
Sen's Slope and 95% Confidence Band Analysis Run 2/2/2024 4:21 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database outliers flagged



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

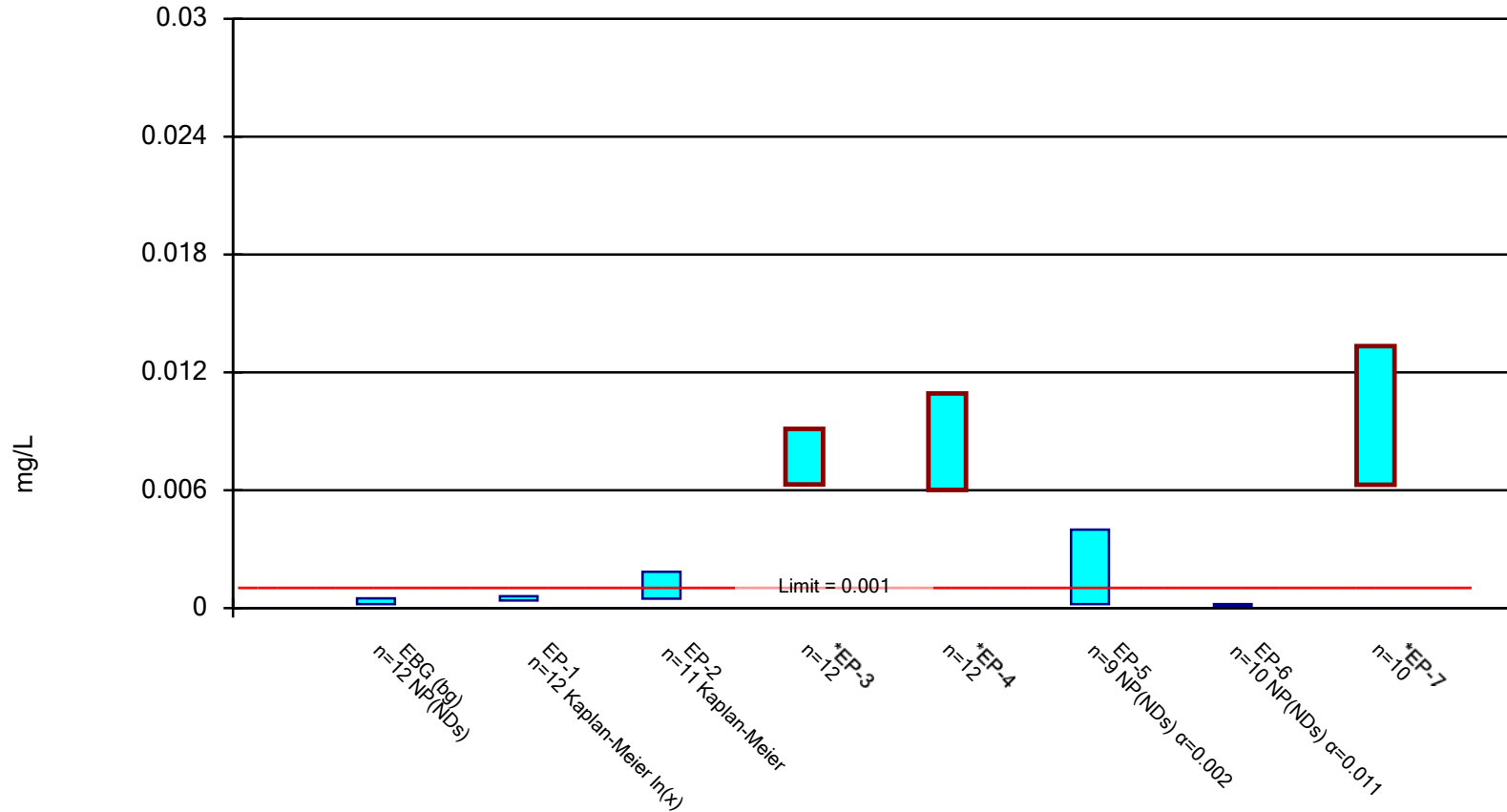


Constituent: Antimony Analysis Run 4/22/2024 12:17 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

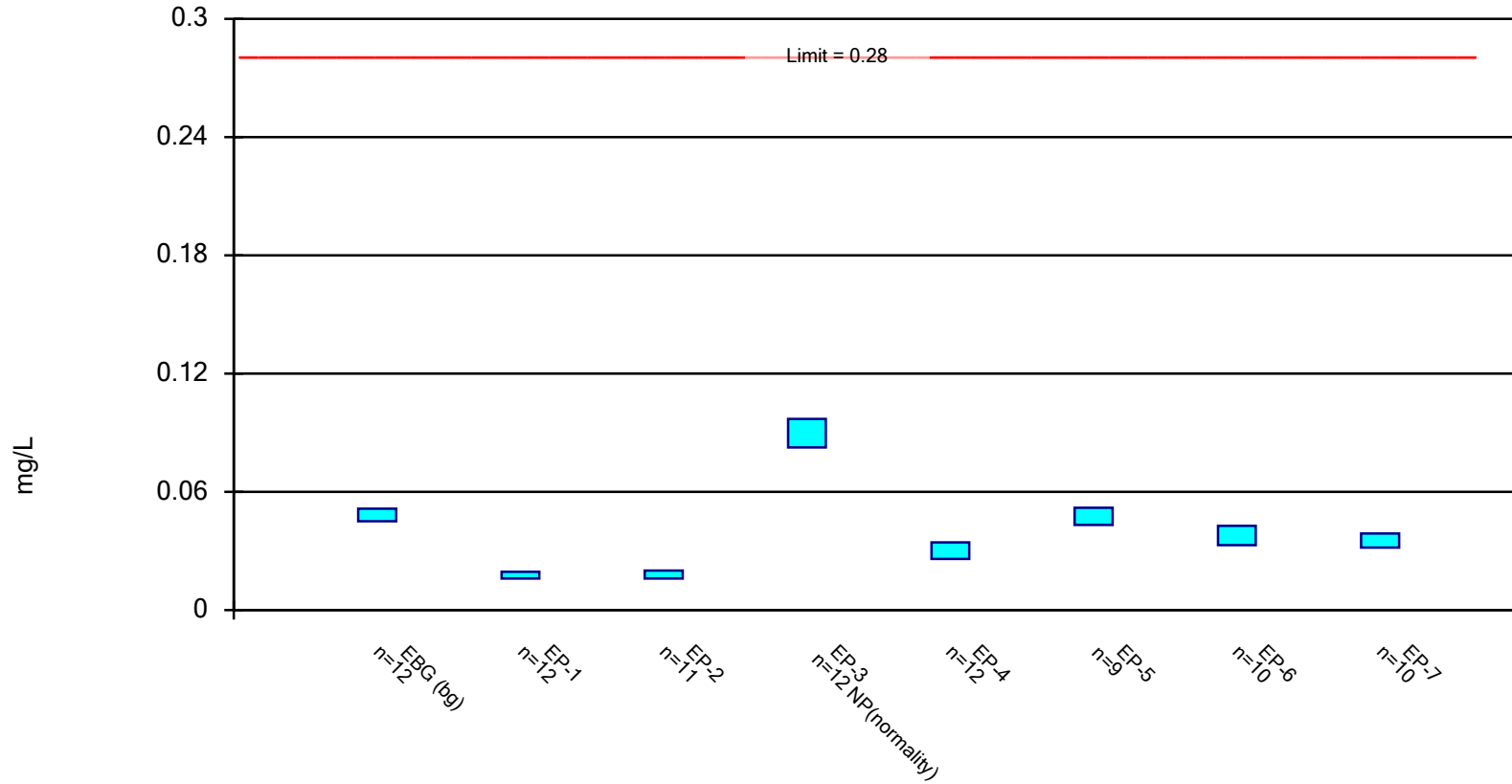


Constituent: Arsenic Analysis Run 4/22/2024 12:17 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

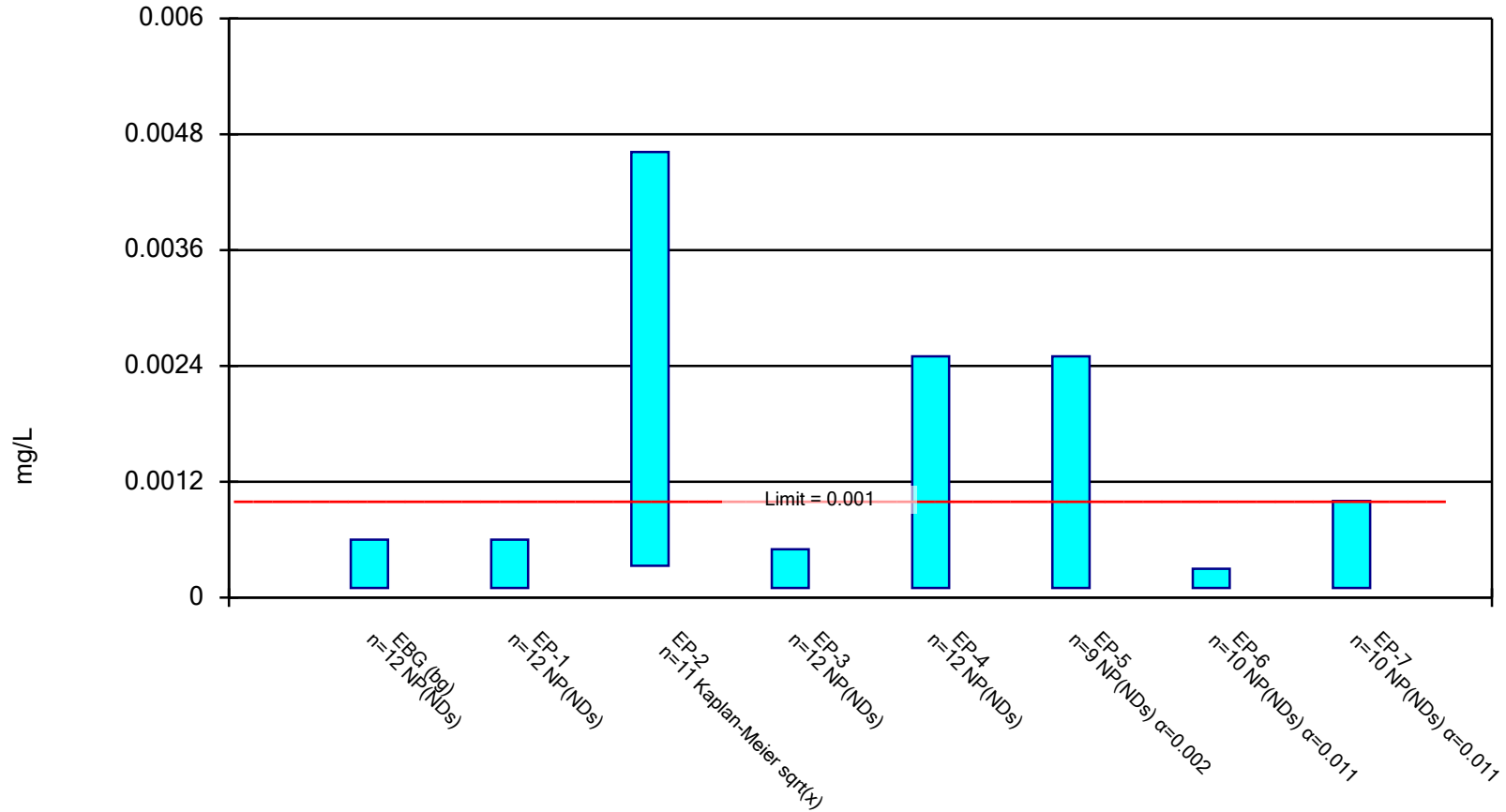


Constituent: Barium Analysis Run 4/22/2024 12:17 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



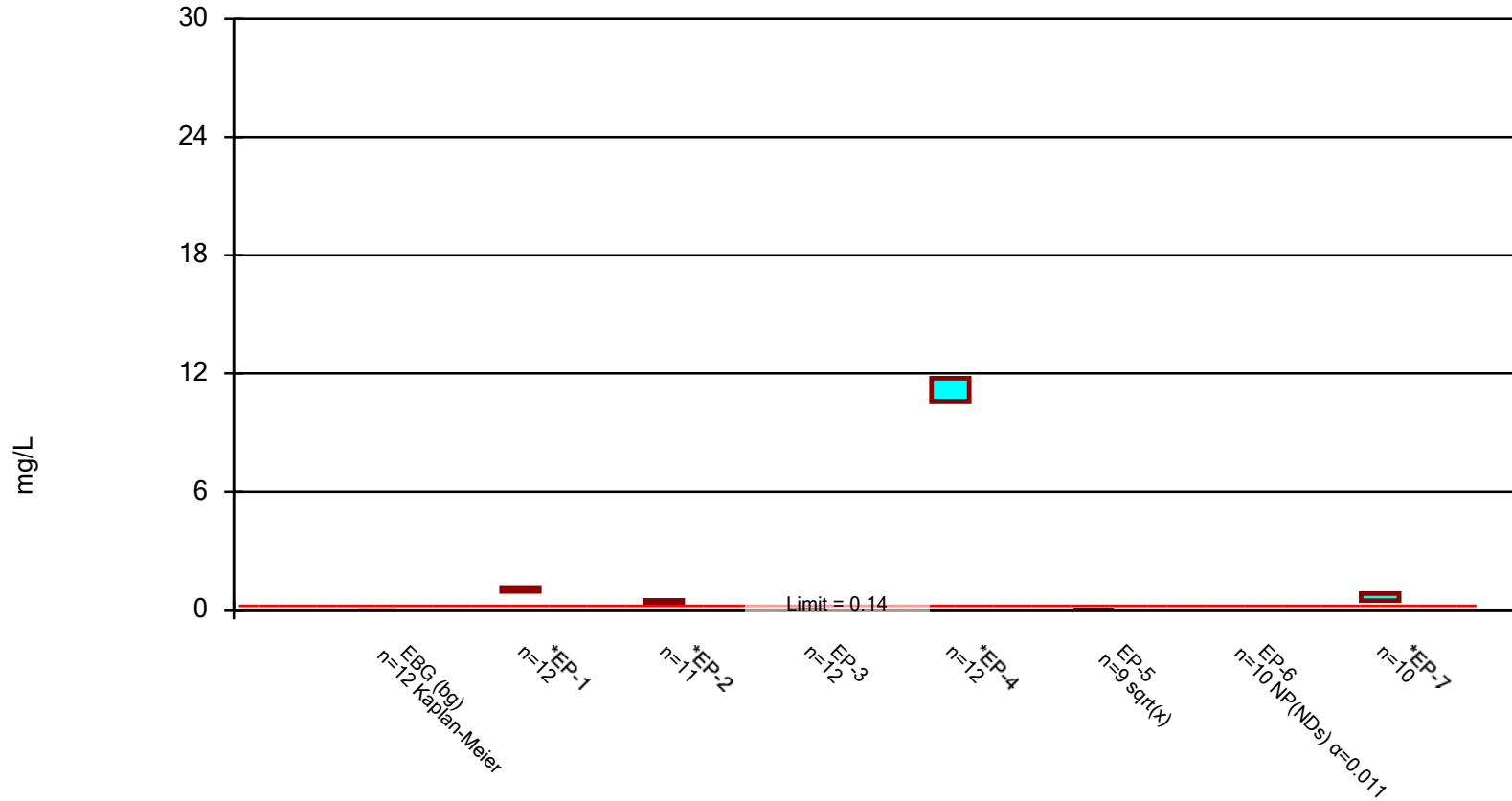
Constituent: Beryllium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

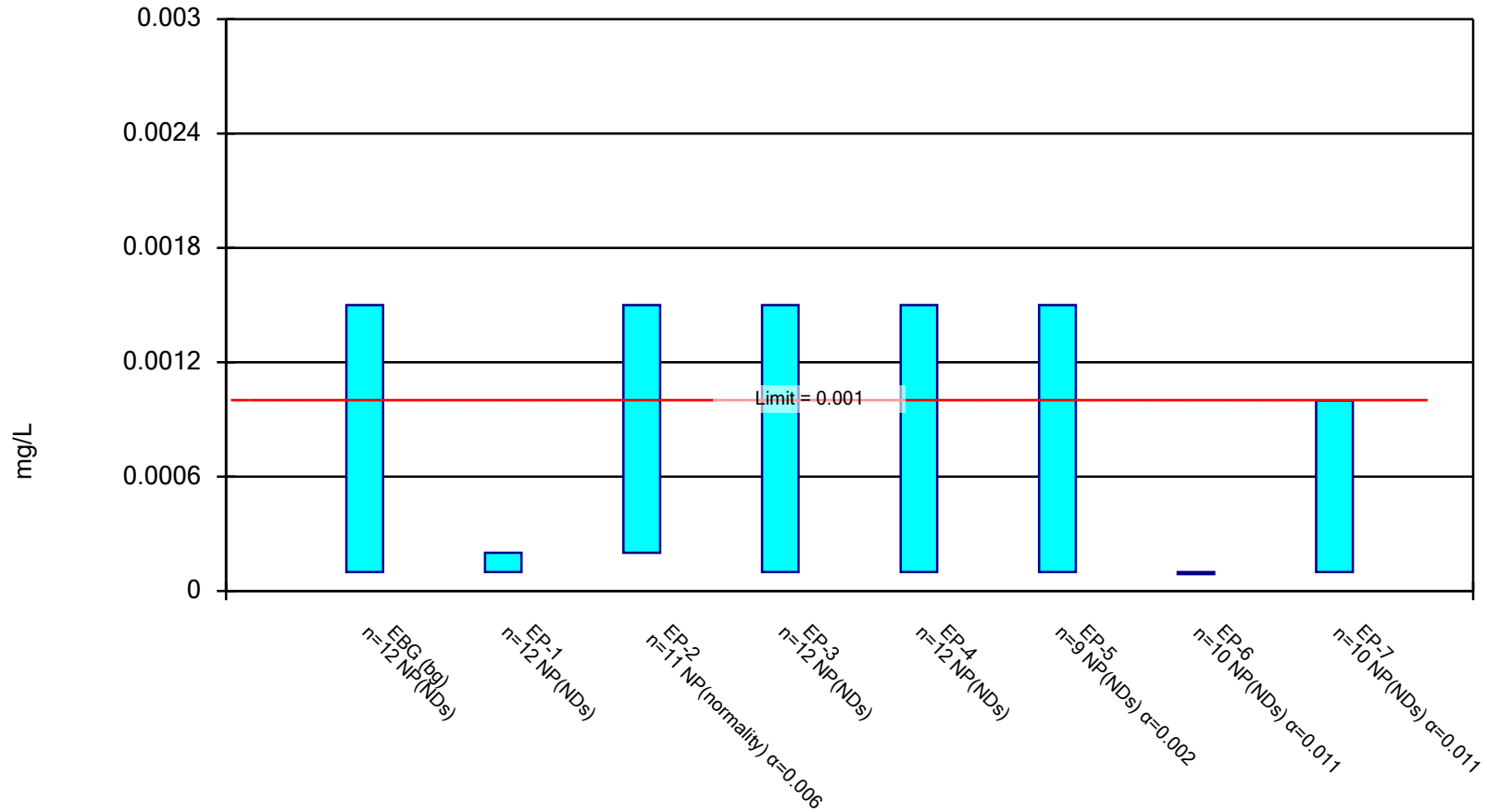


Constituent: Boron Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

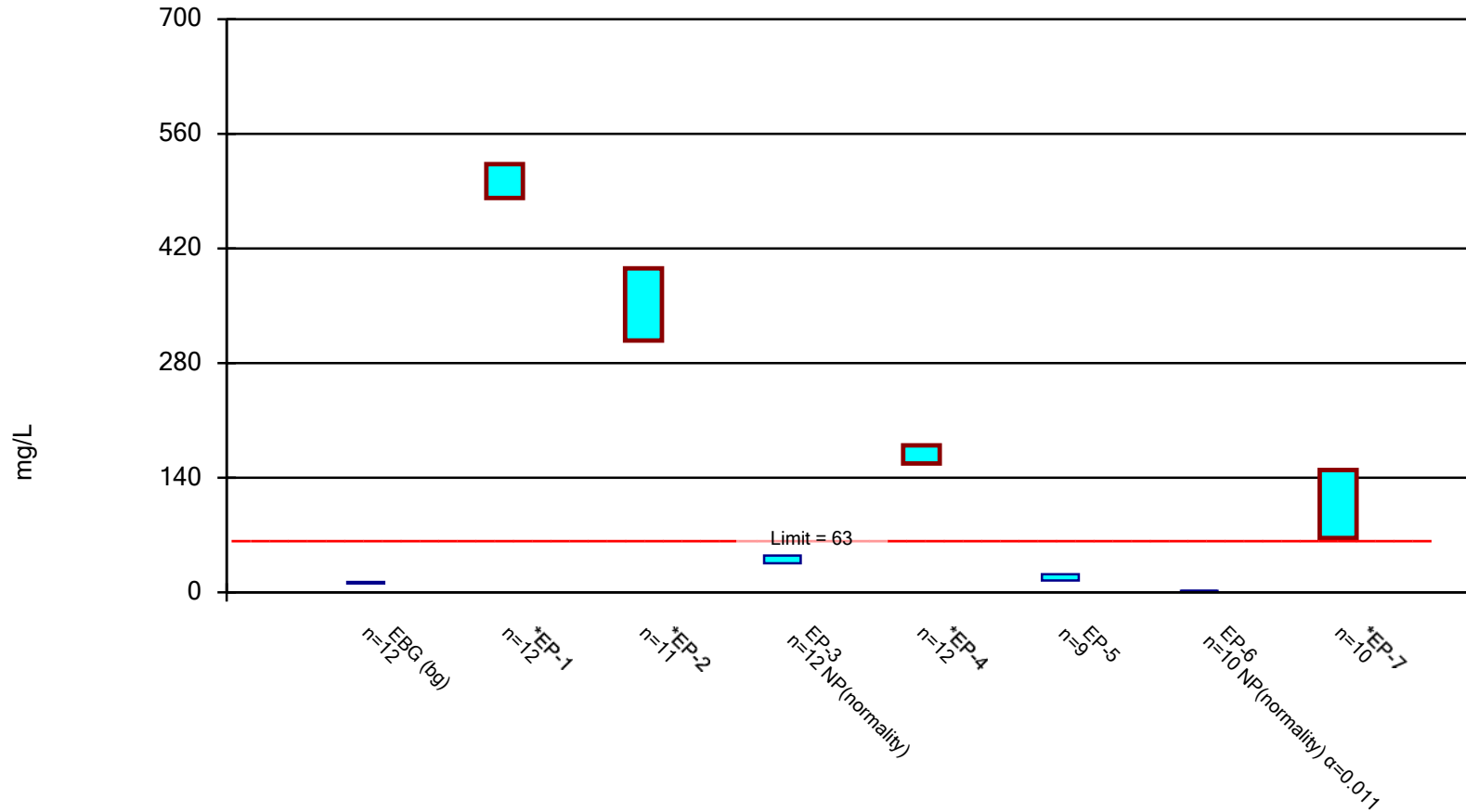


Constituent: Cadmium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

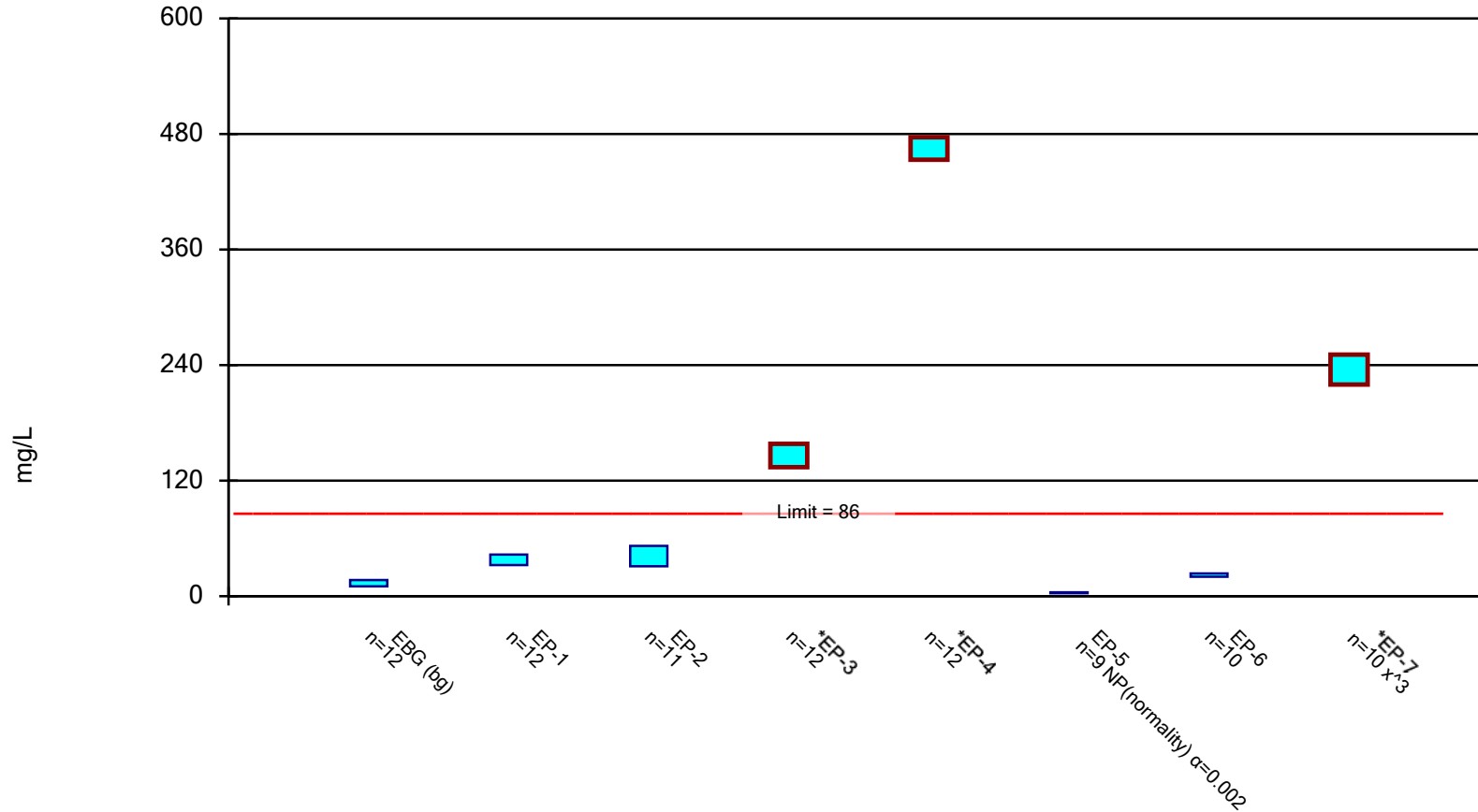


Constituent: Calcium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

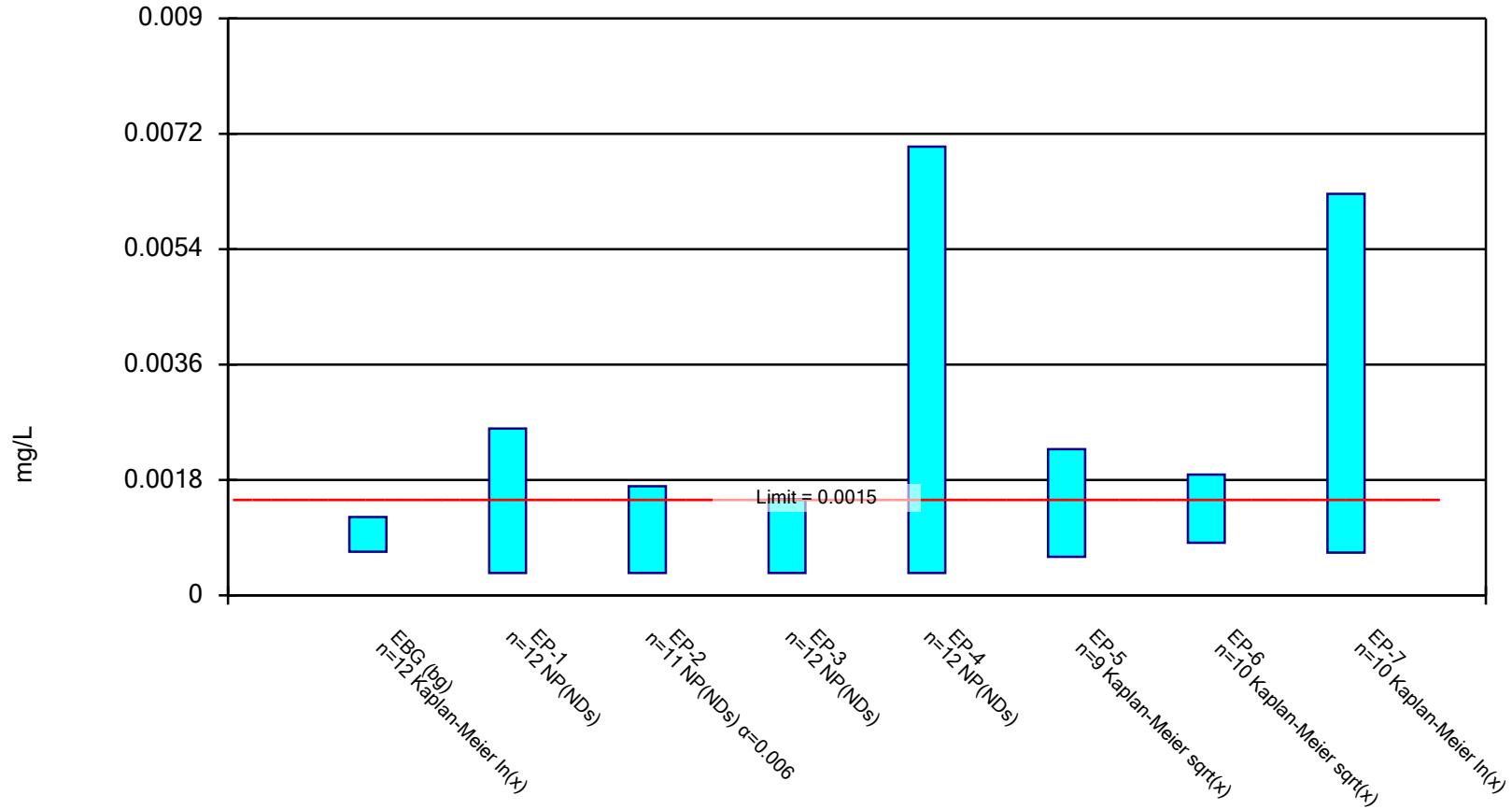


Constituent: Chloride Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

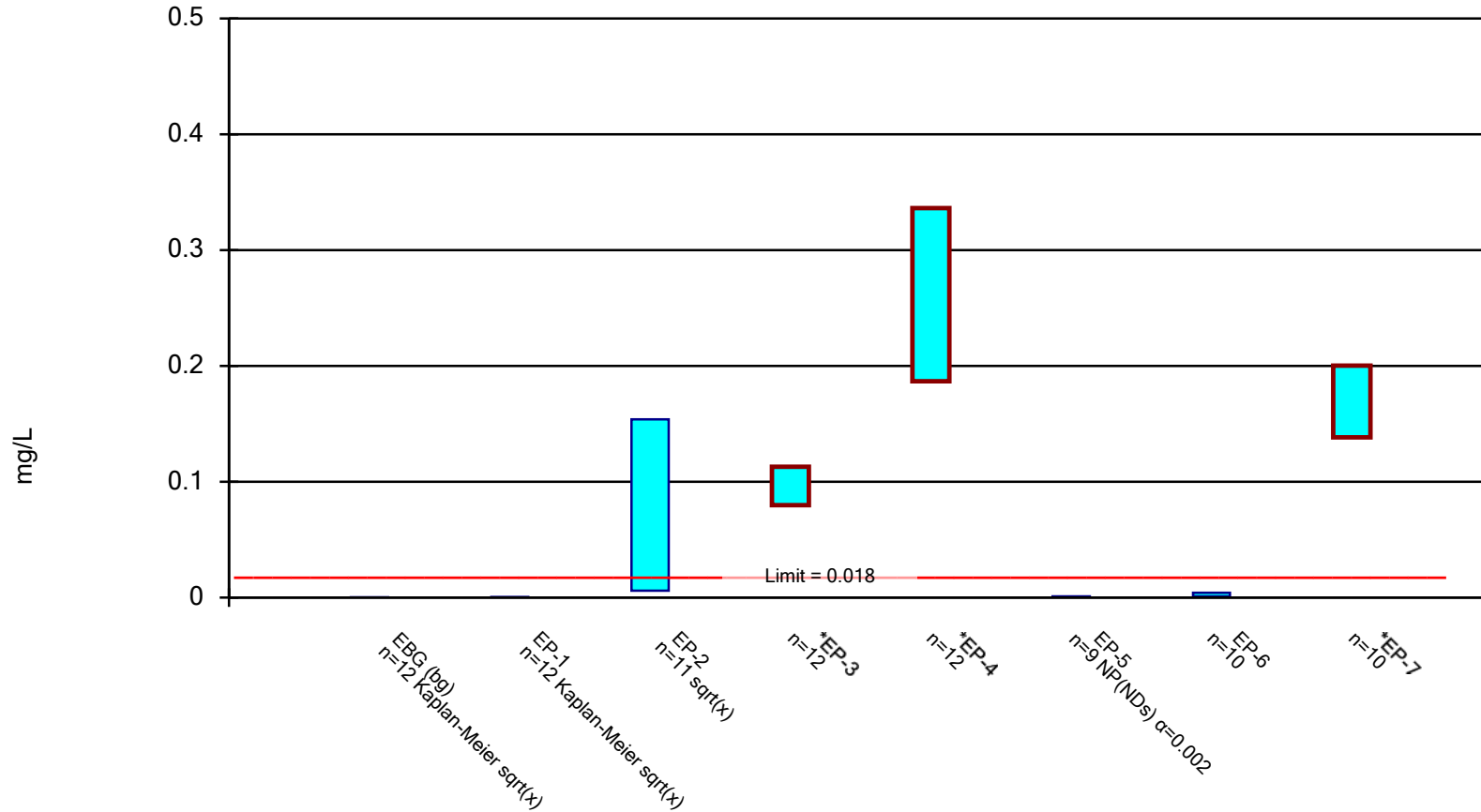


Constituent: Chromium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

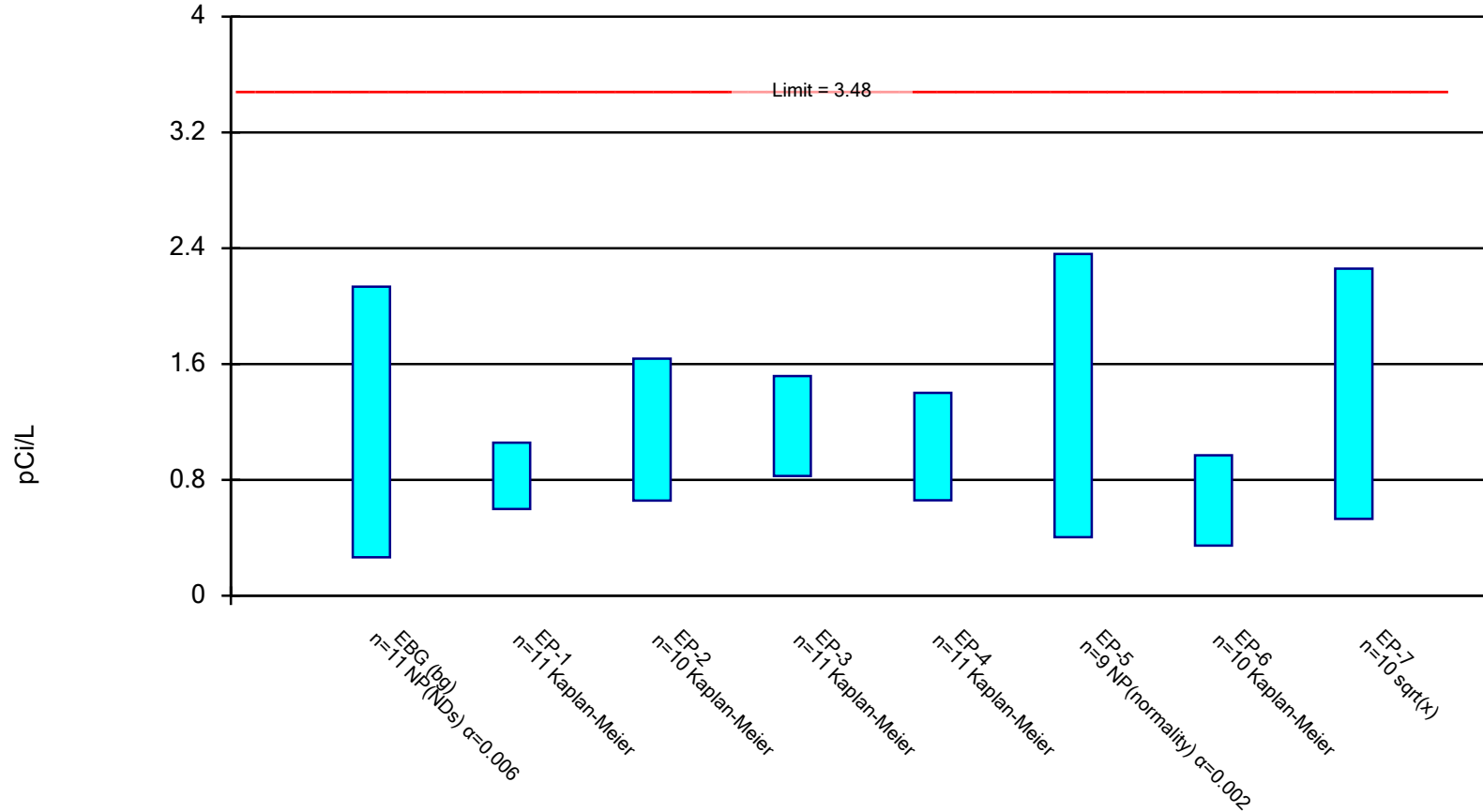


Constituent: Cobalt Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

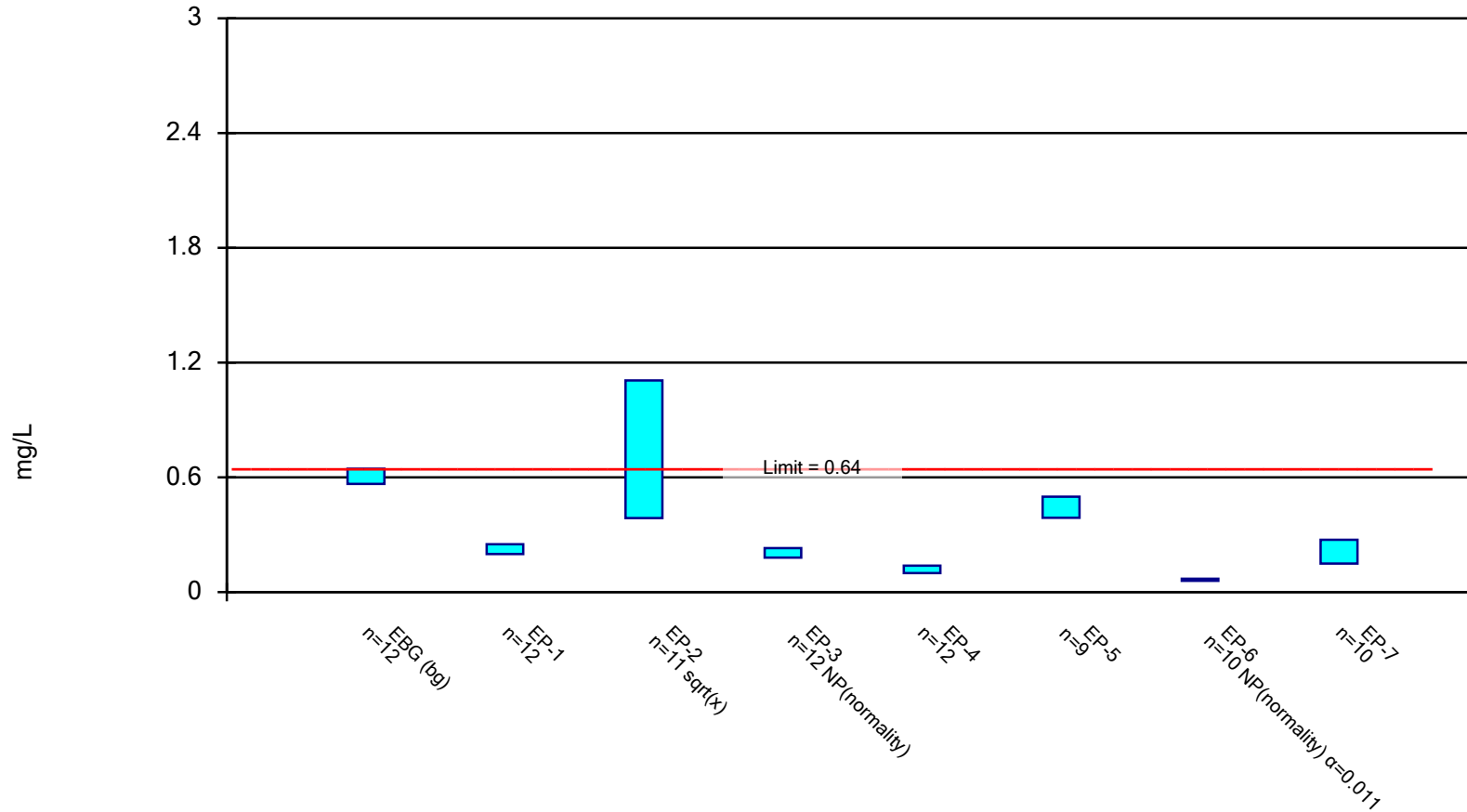


Constituent: Combined Radium    Analysis Run 4/22/2024 12:18 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database 2023 Q4



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

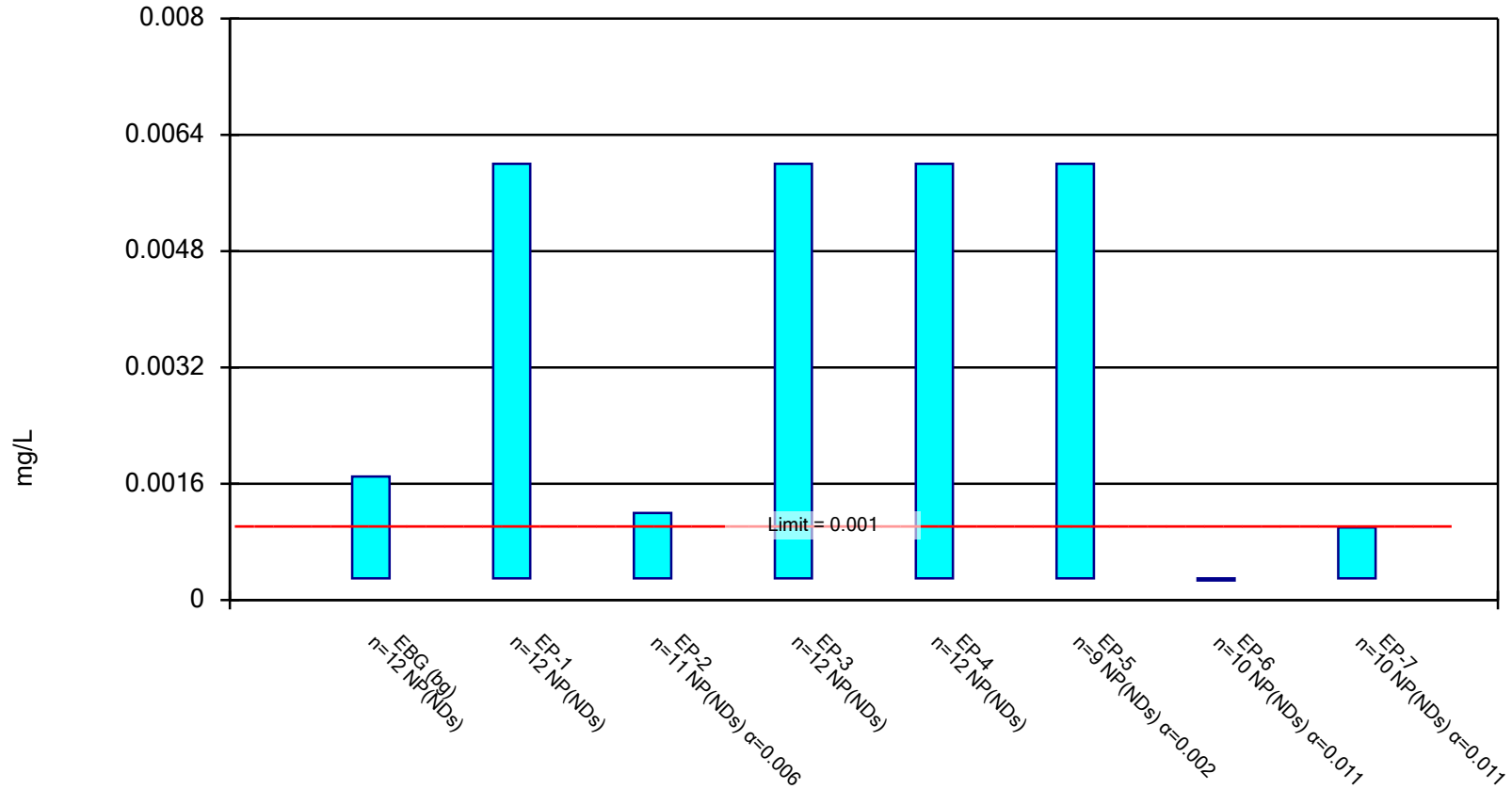


Constituent: Fluoride Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

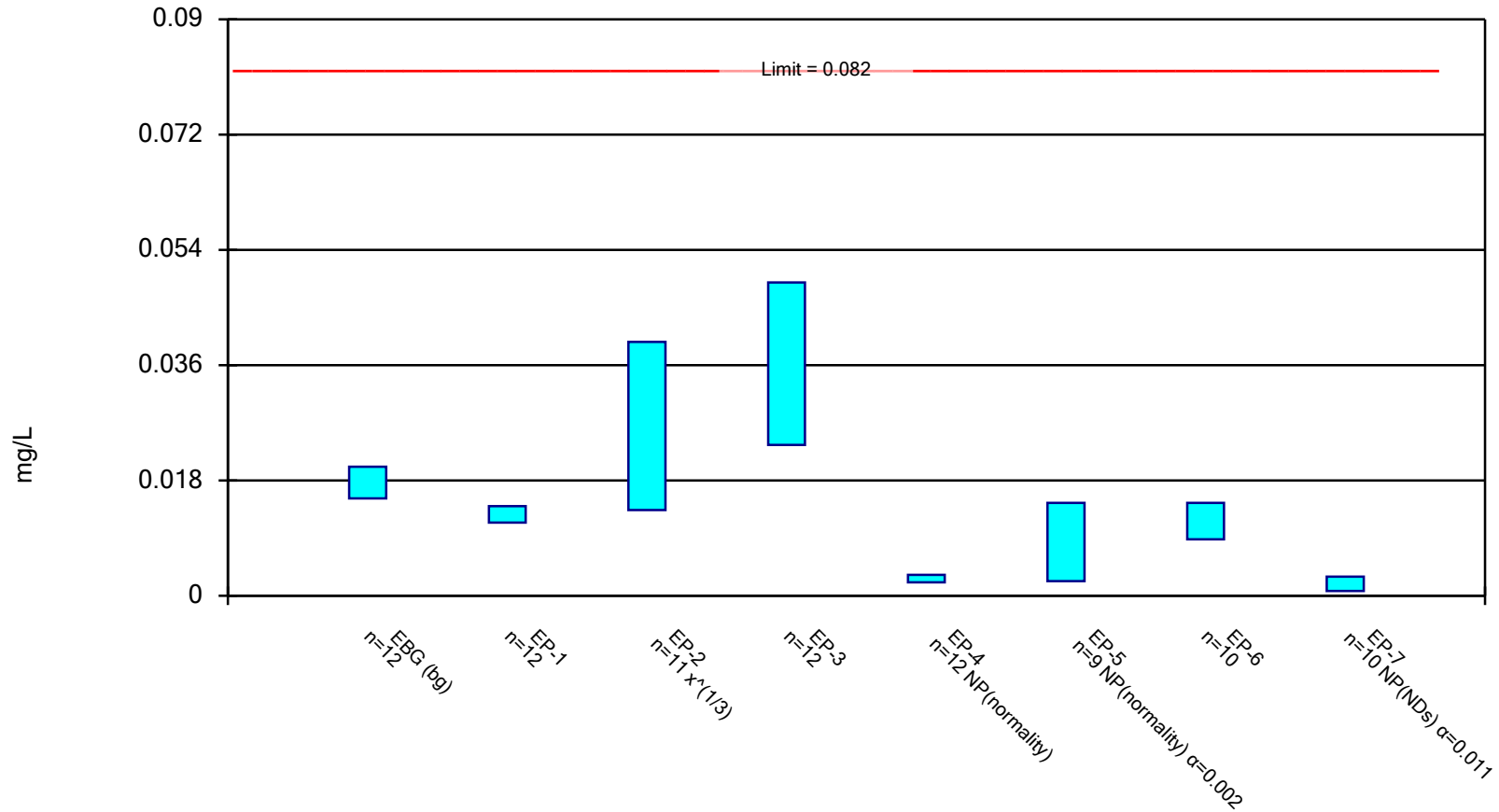


Constituent: Lead Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

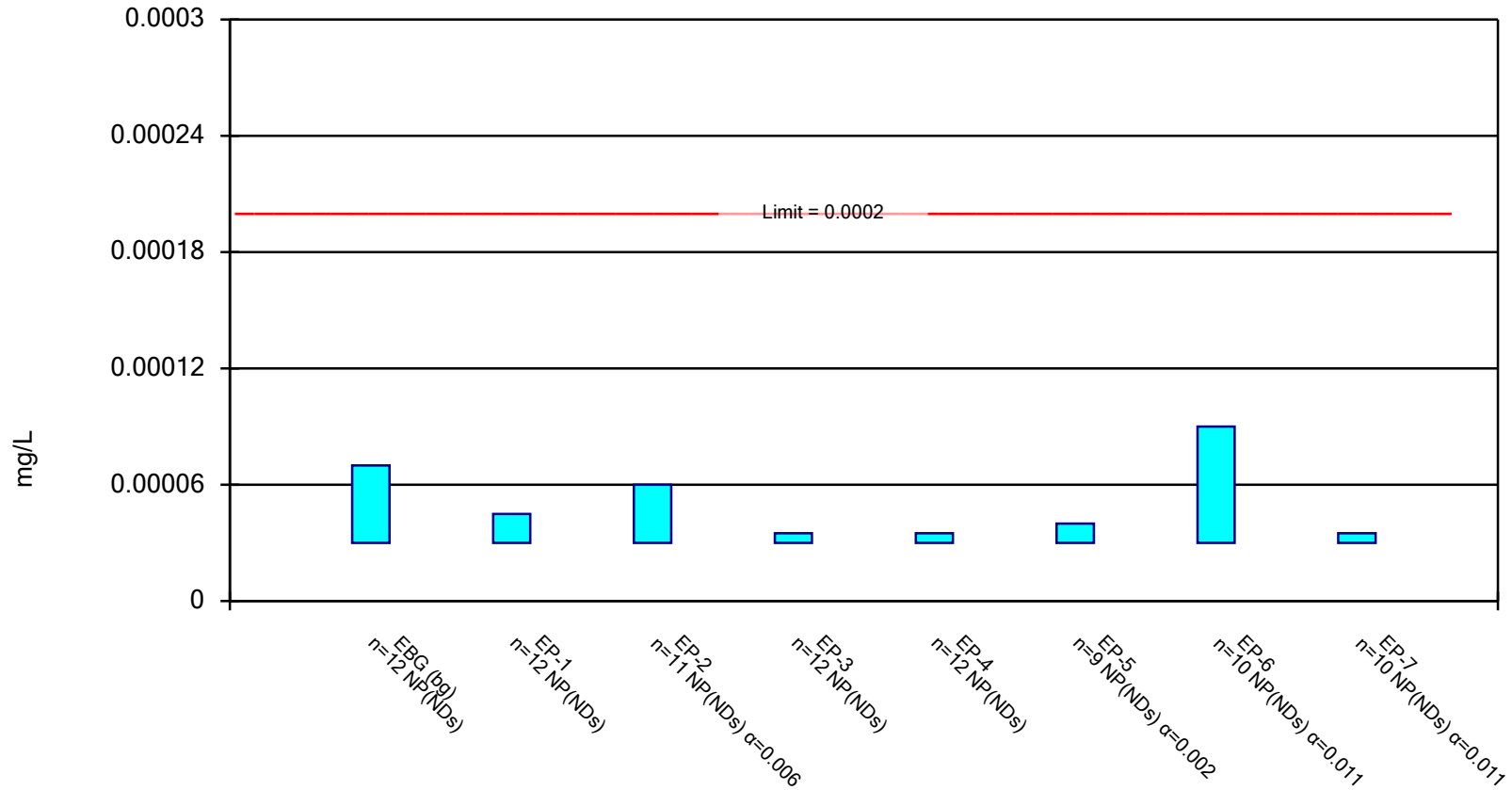


Constituent: Lithium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

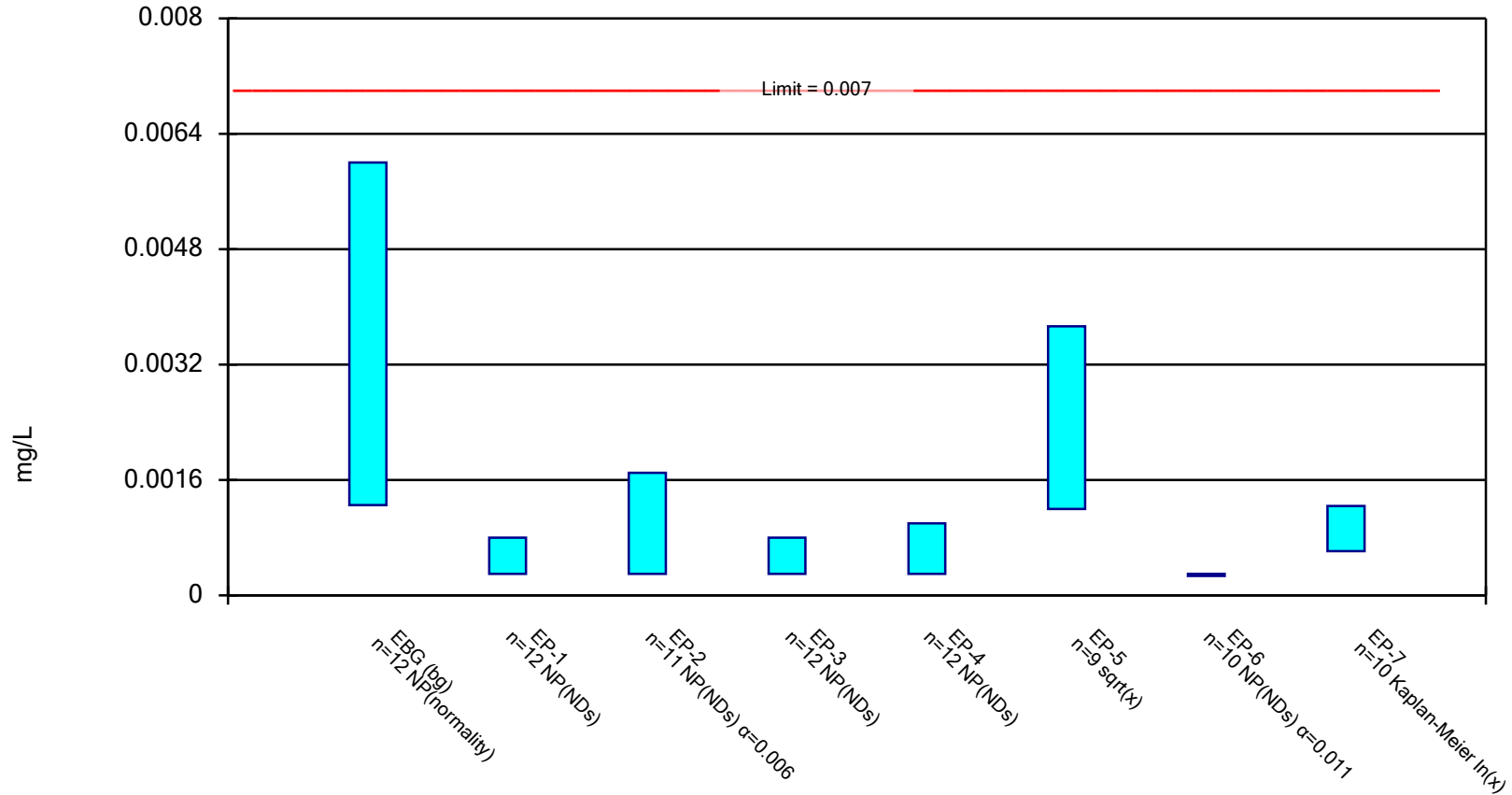


Constituent: Mercury Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

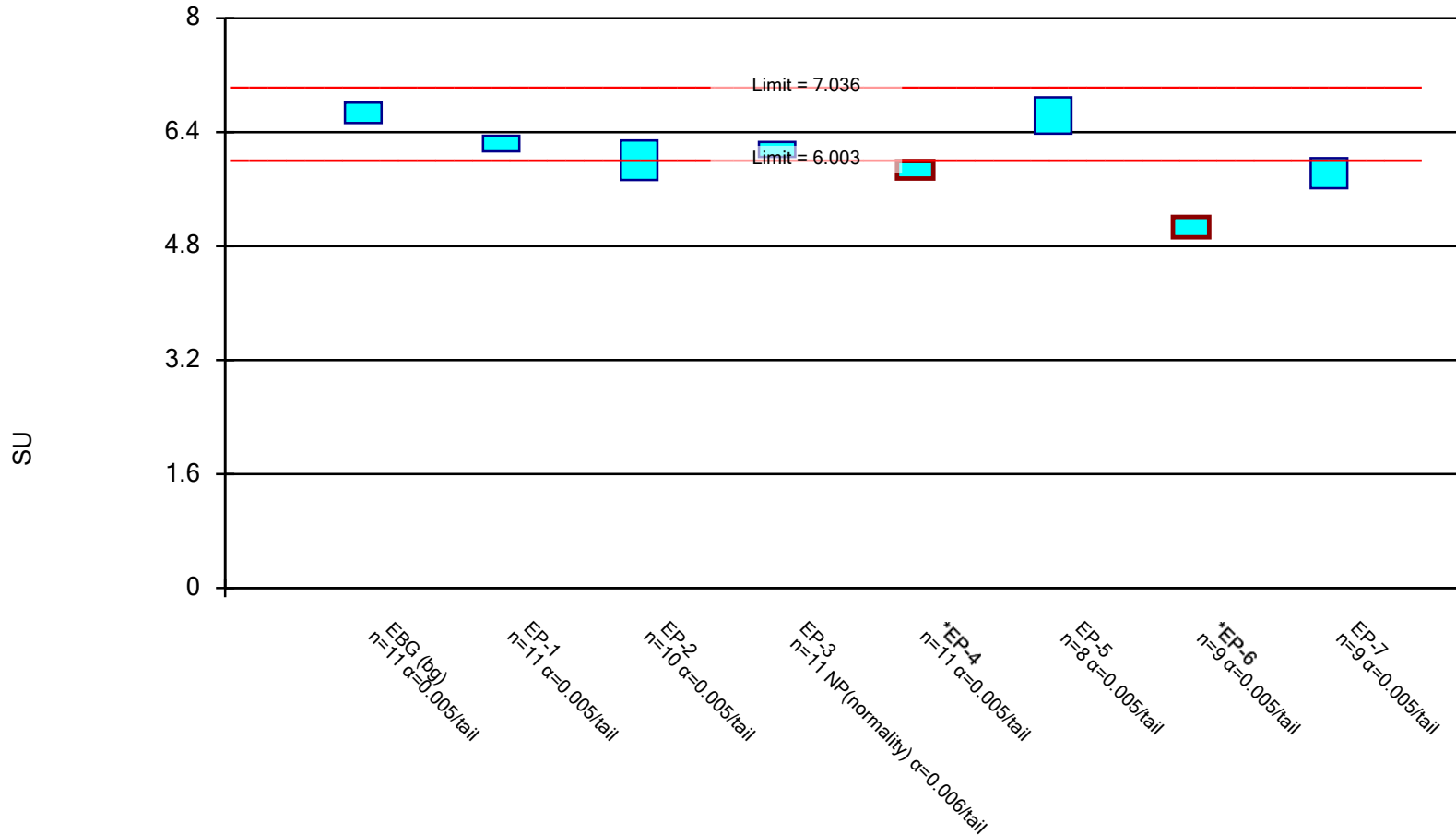


Constituent: Molybdenum Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Normality Test: Shapiro Wilk, alpha based on n.

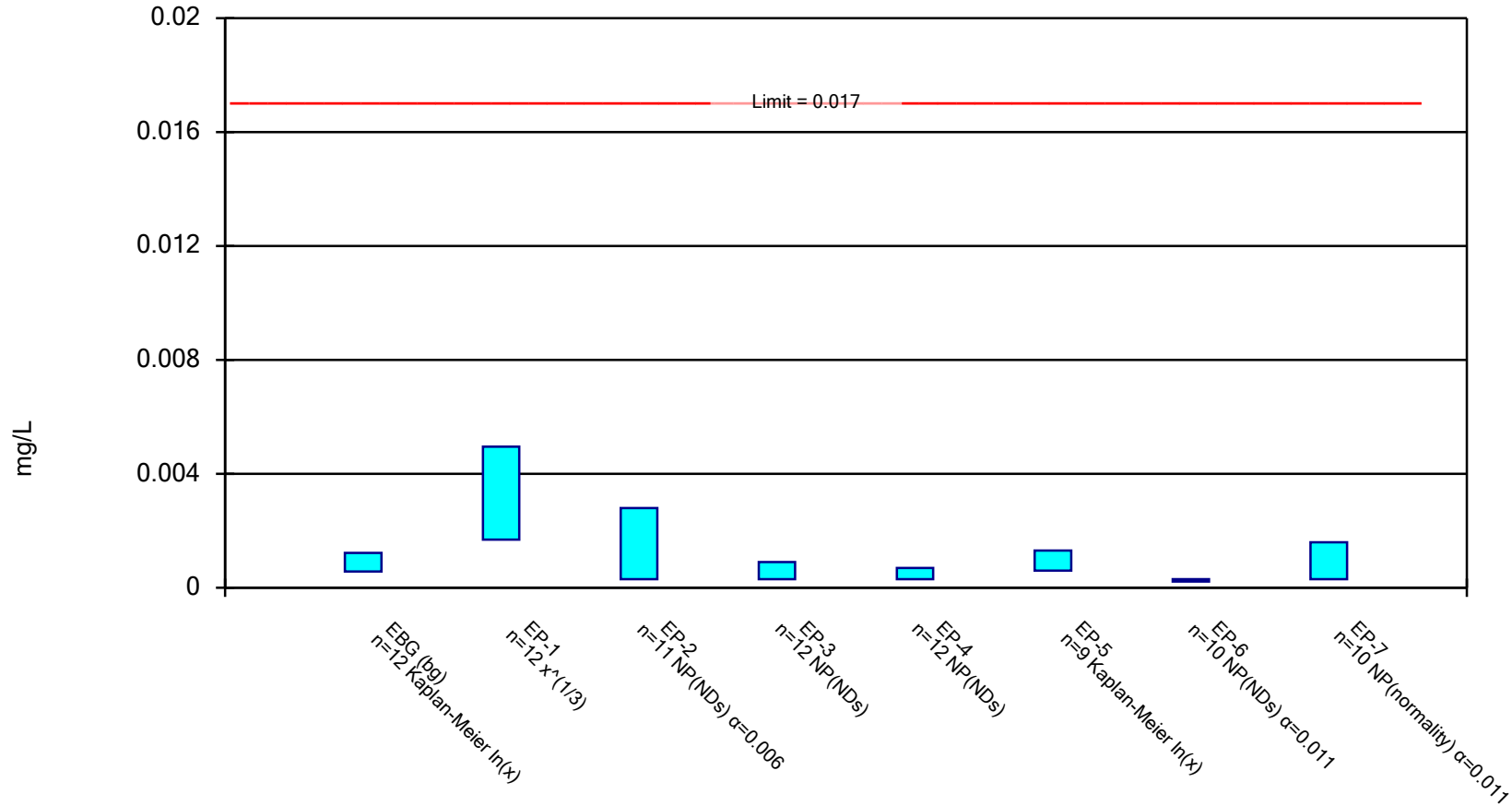


Constituent: pH Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



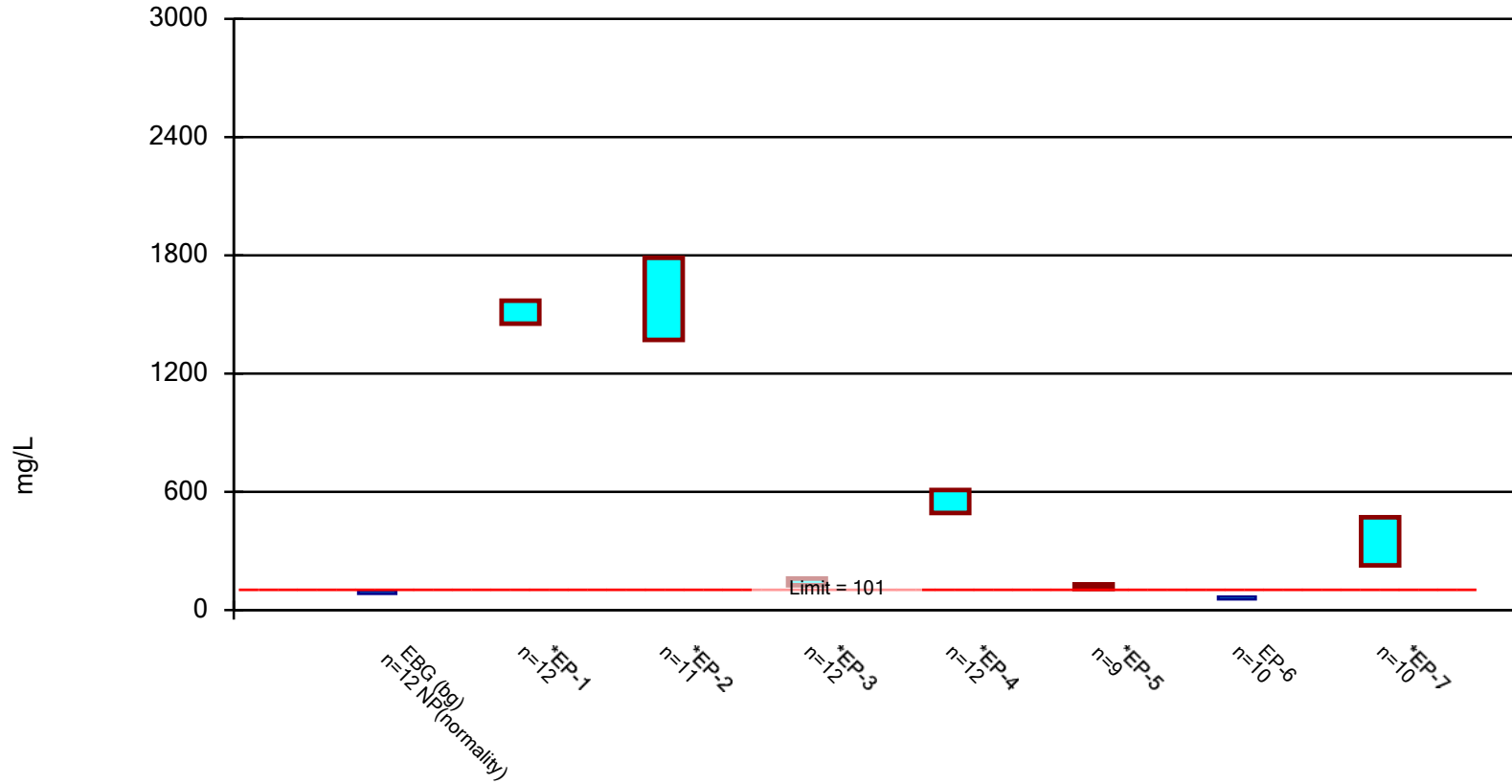
Constituent: Selenium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

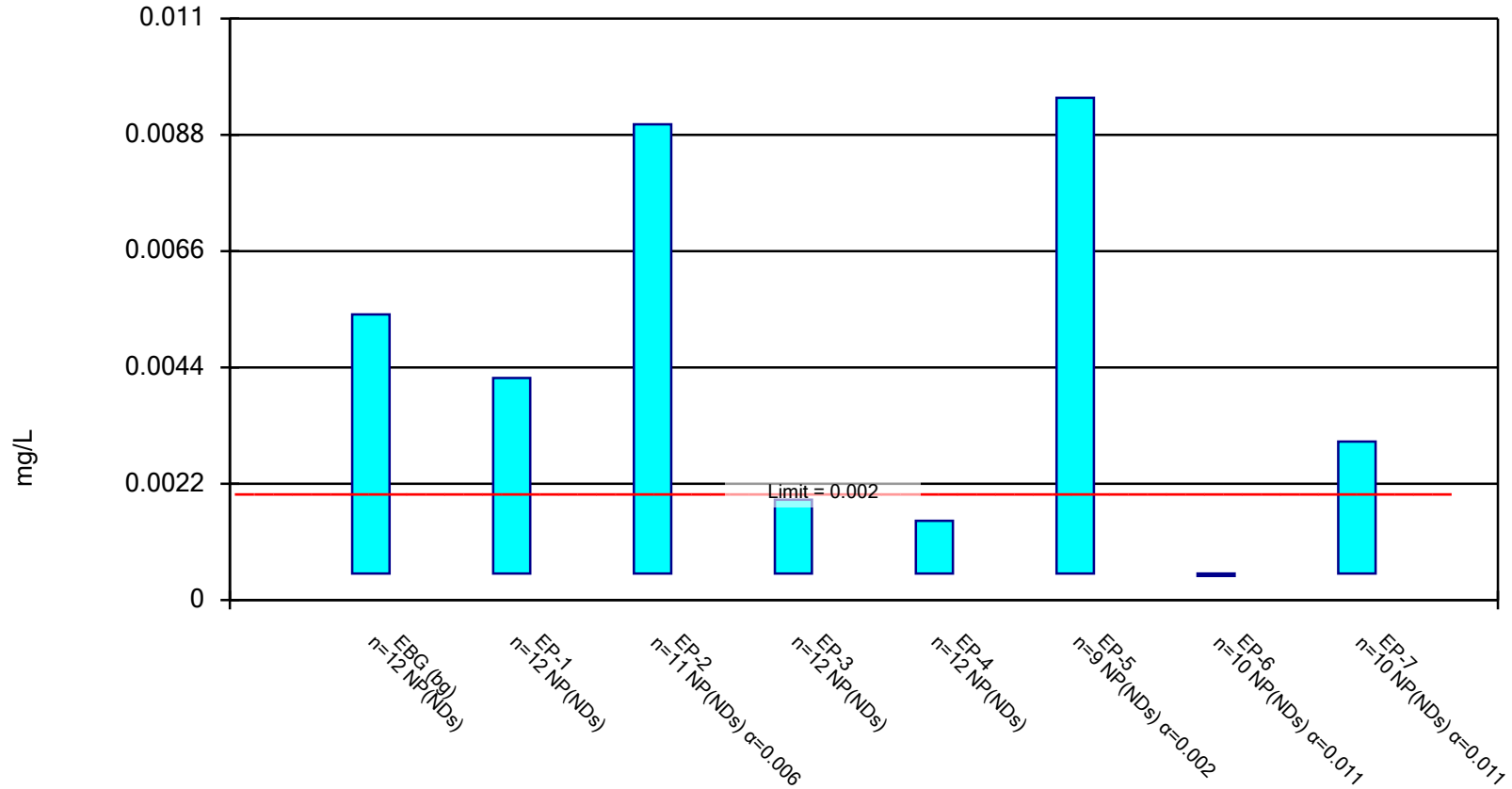


Constituent: Sulfate Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

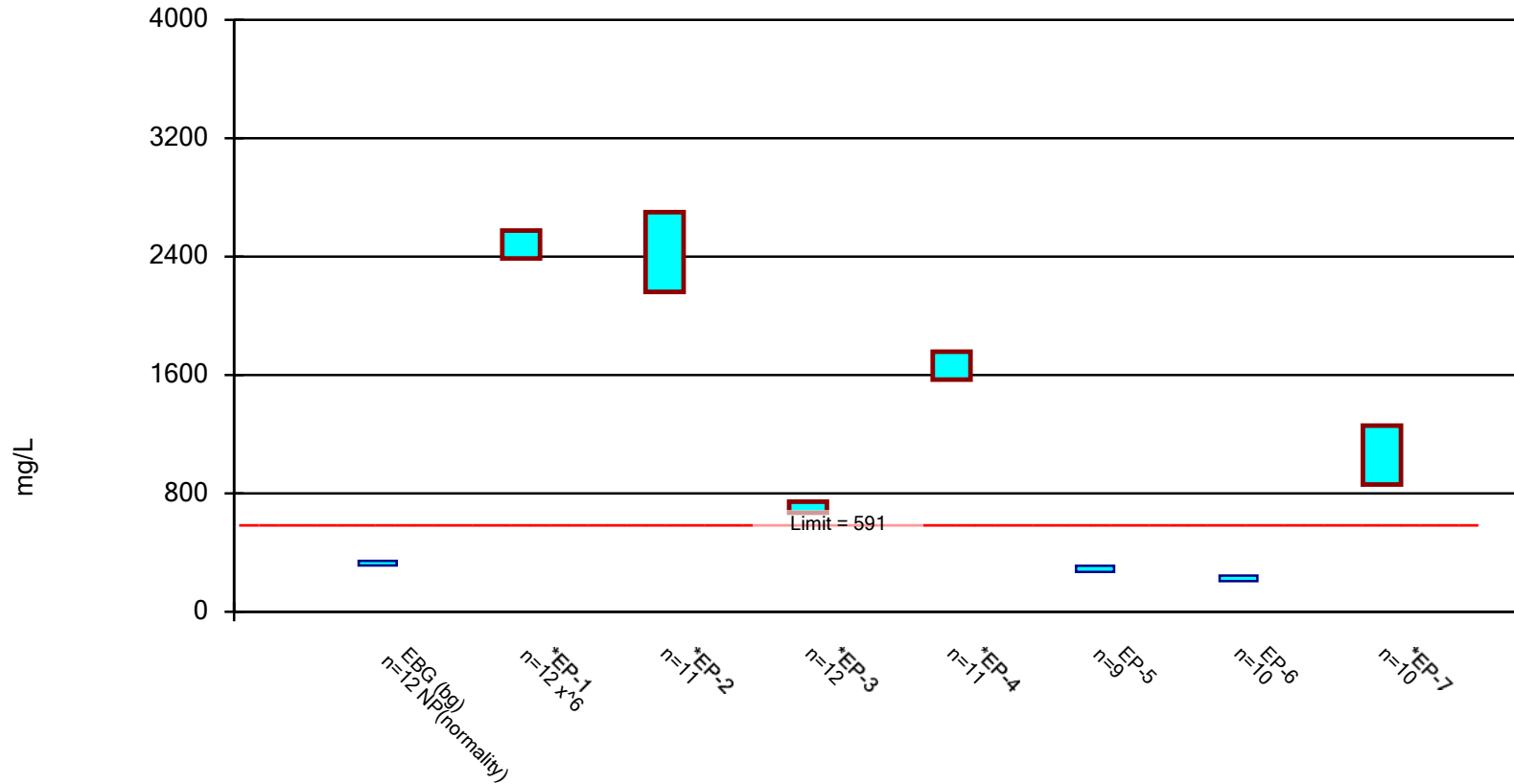


Constituent: Thallium Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



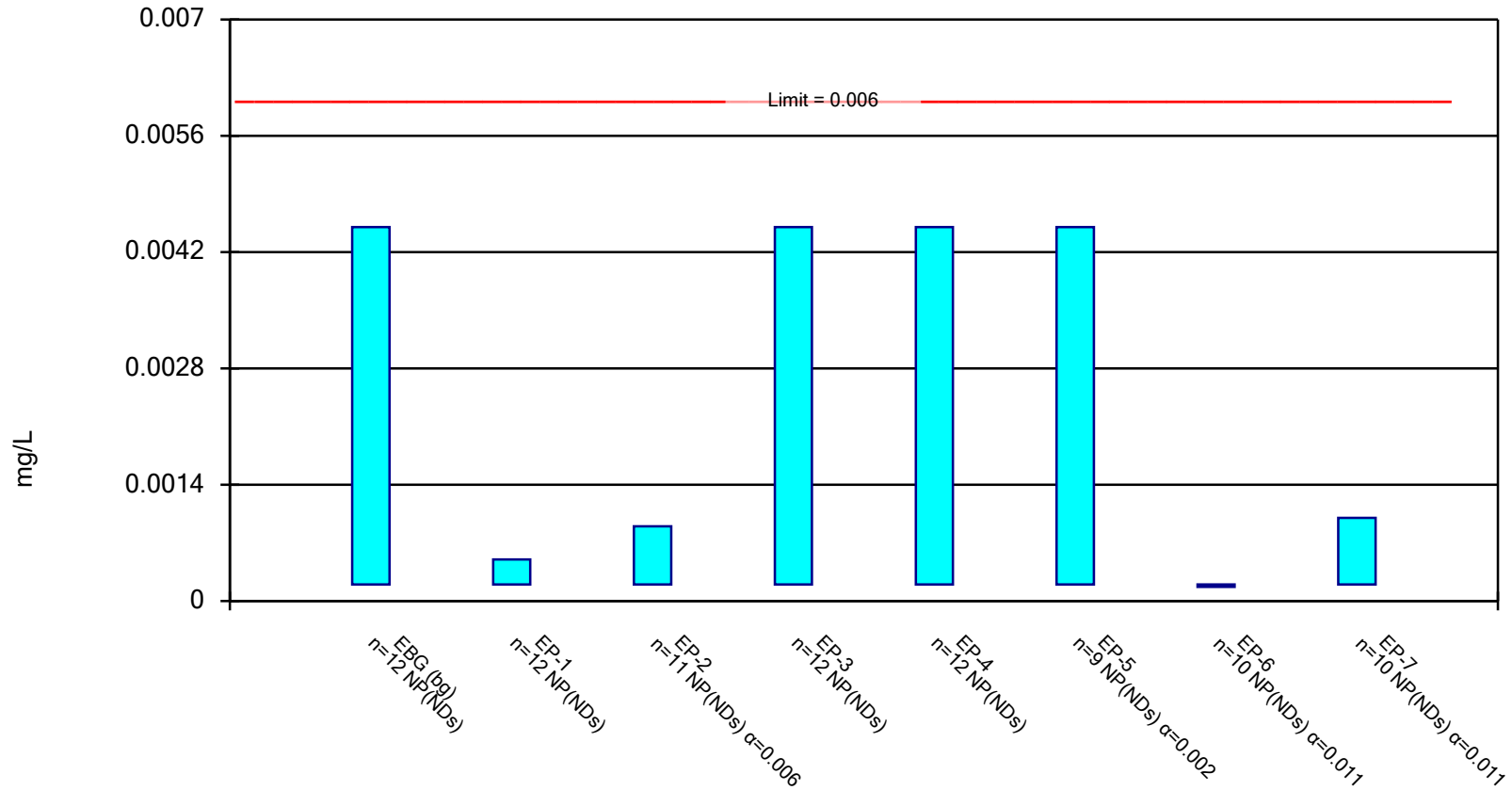
Constituent: Total Dissolved Solids Analysis Run 4/22/2024 12:18 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

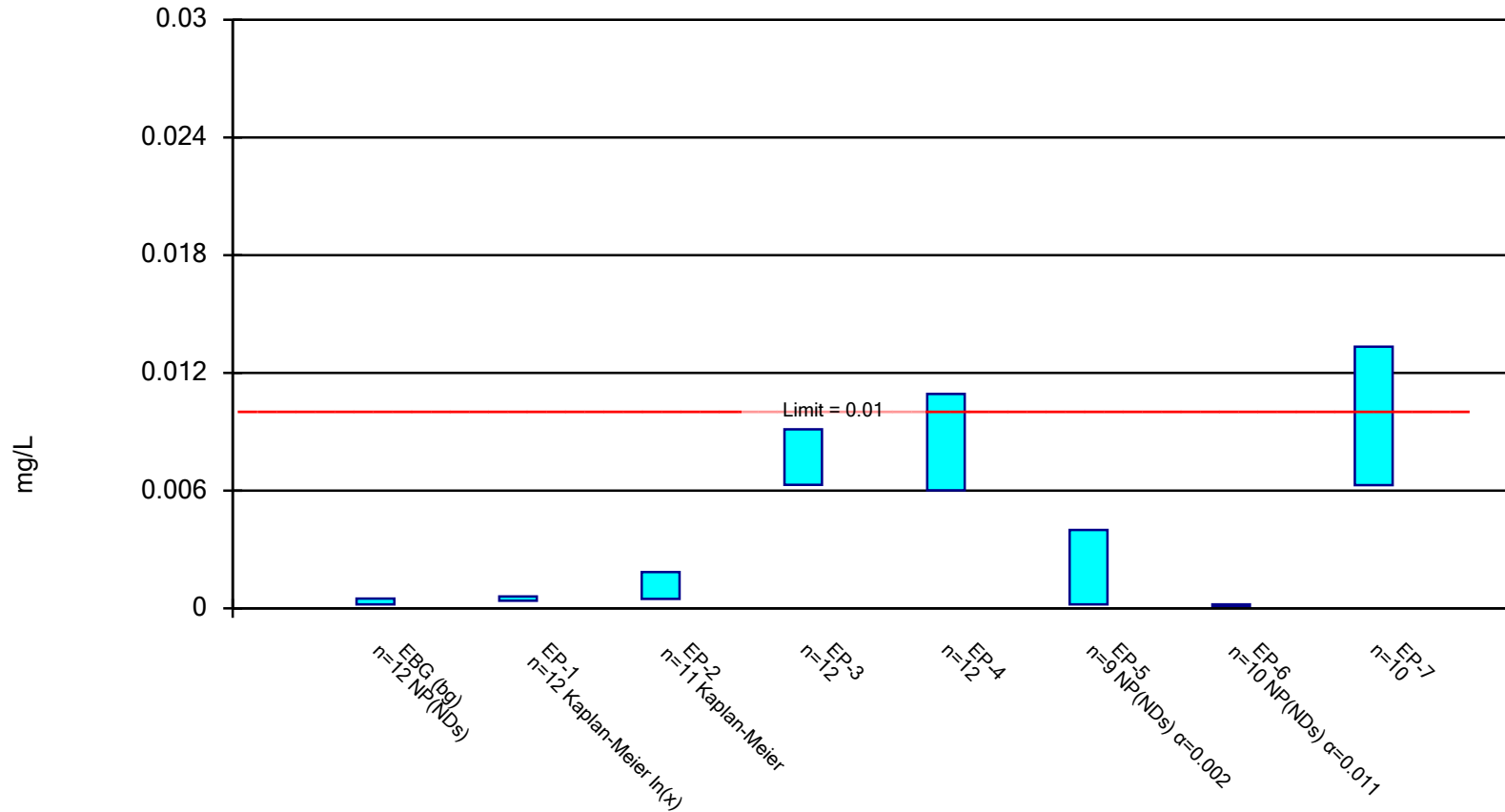


Constituent: Antimony Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

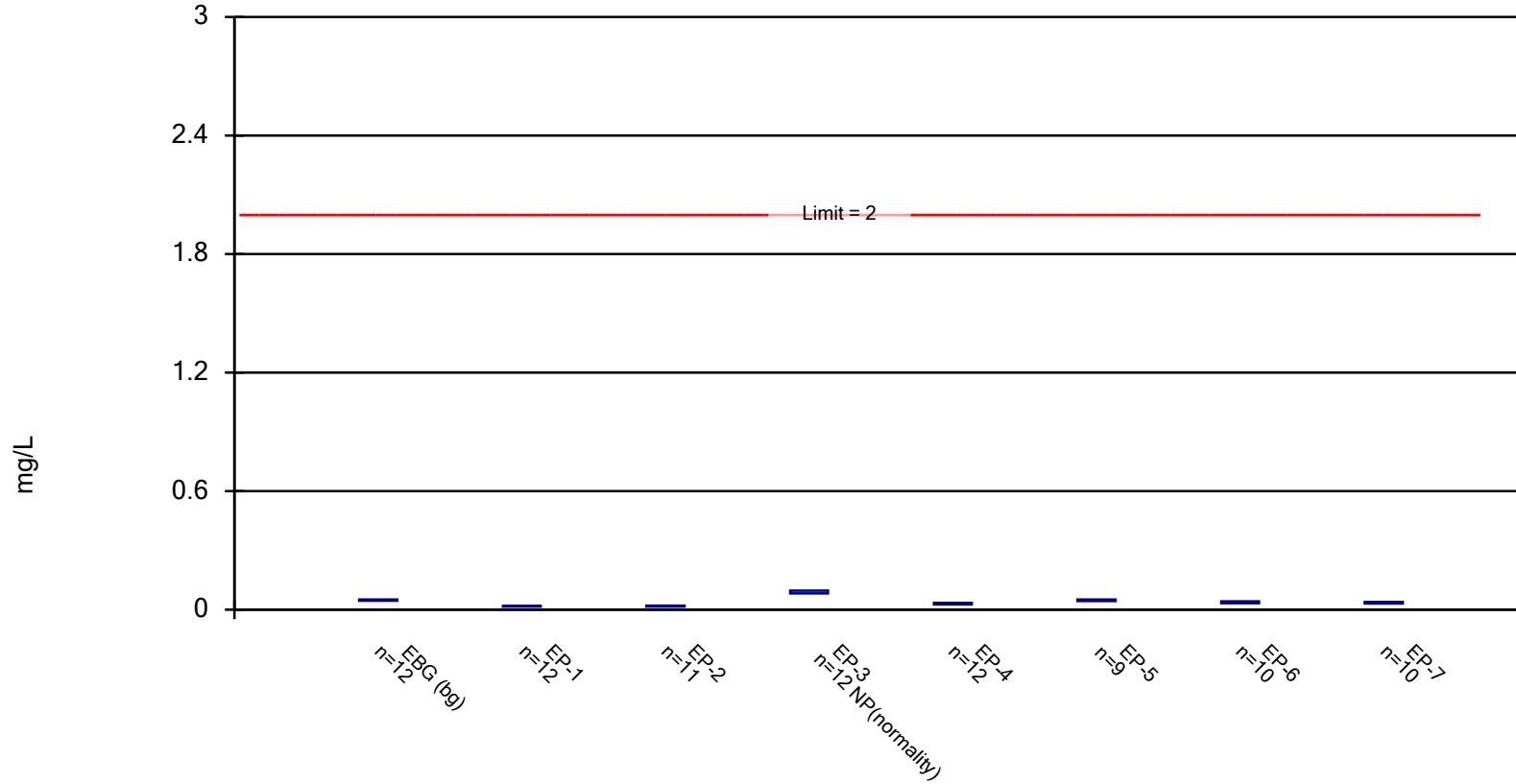


Constituent: Arsenic Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



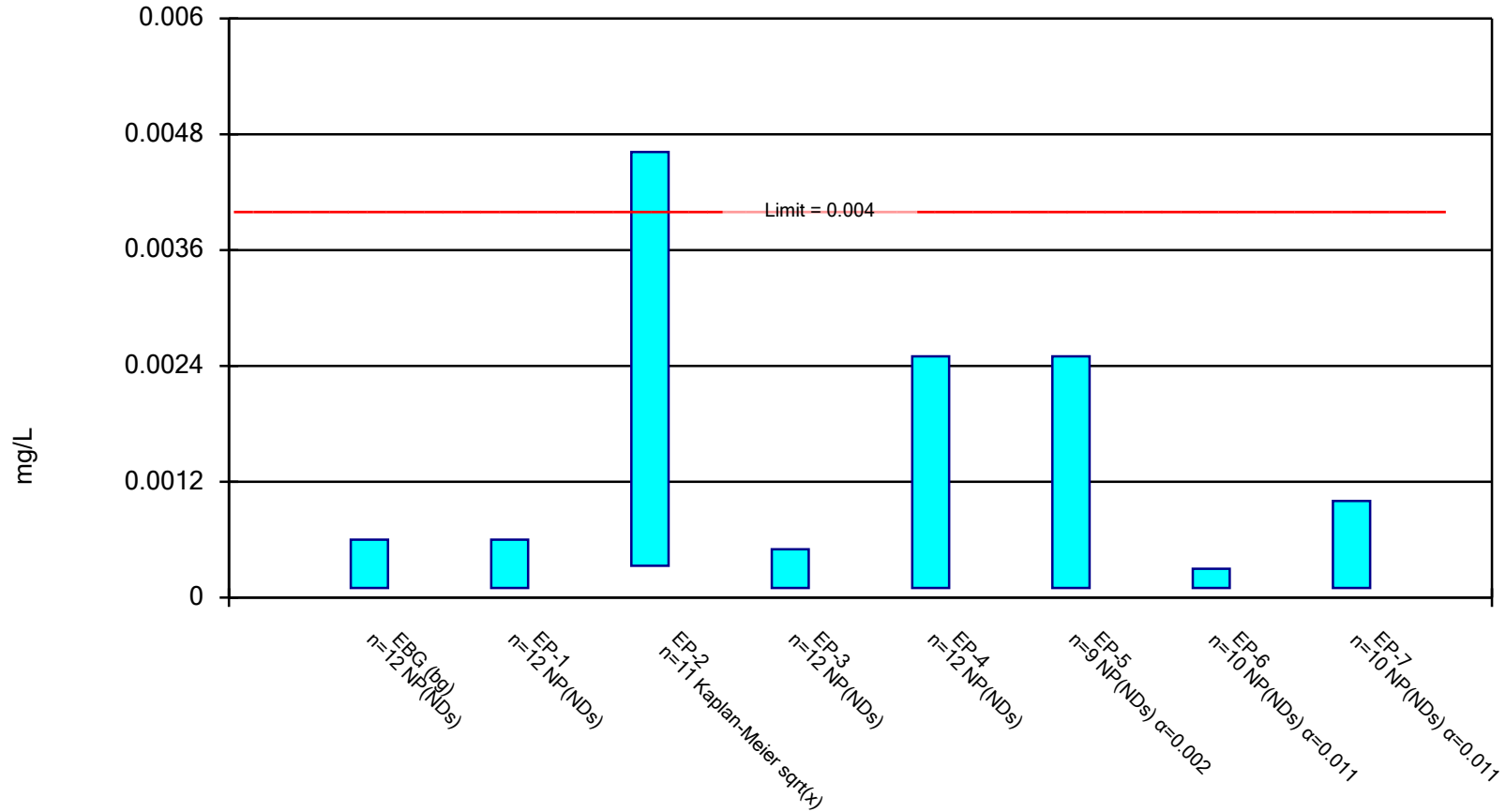
Constituent: Barium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

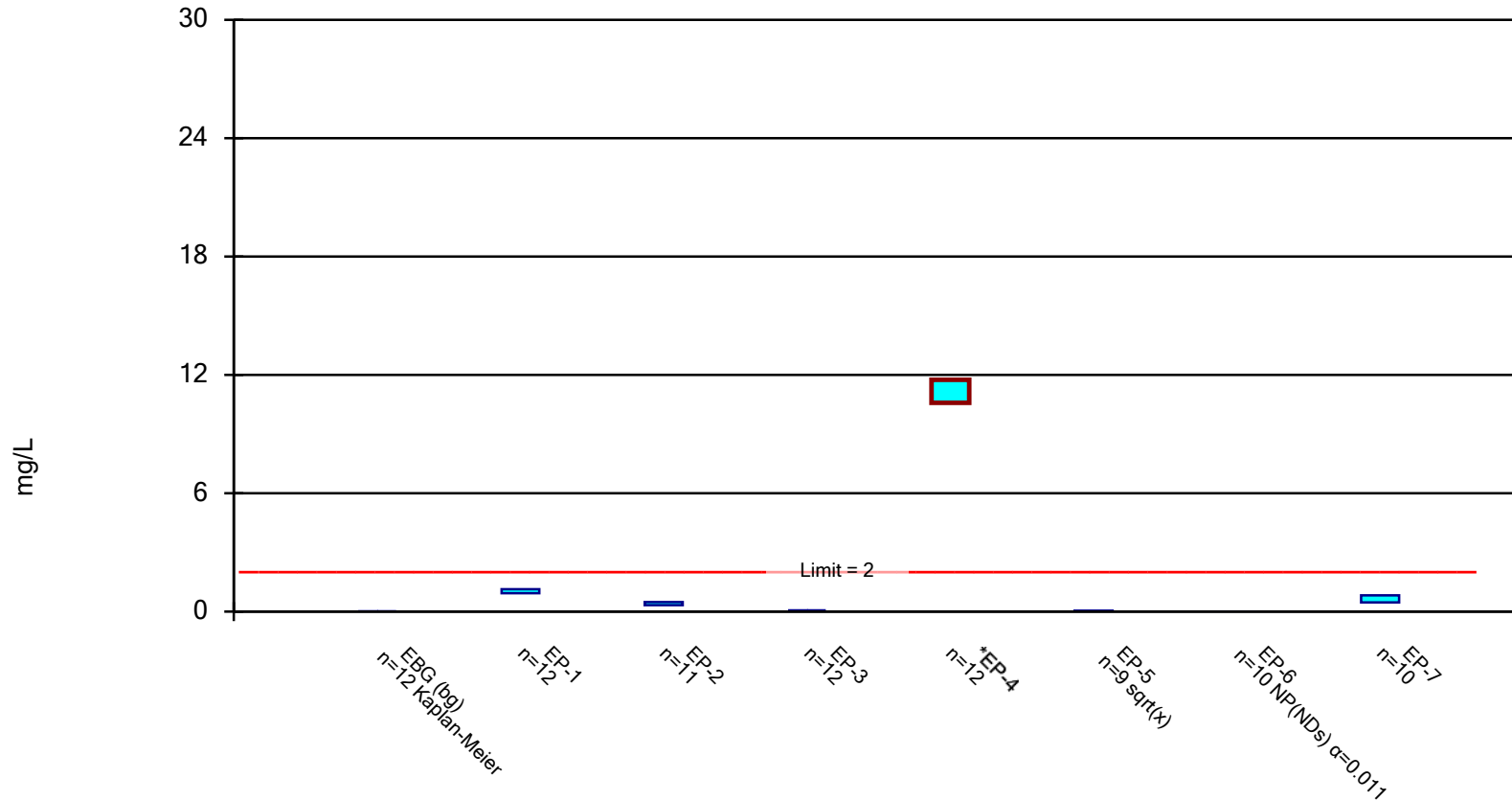


Constituent: Beryllium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

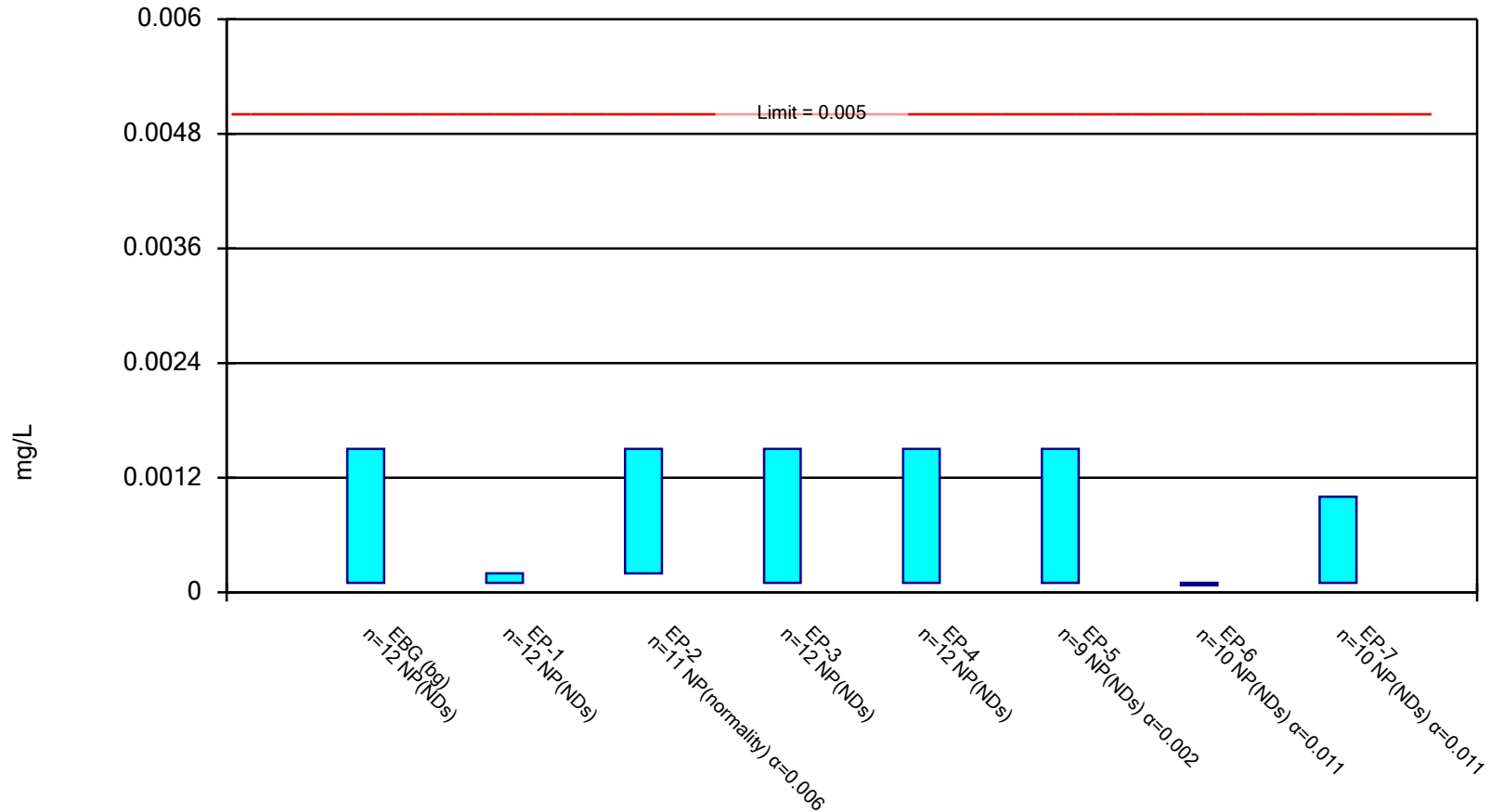


Constituent: Boron Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

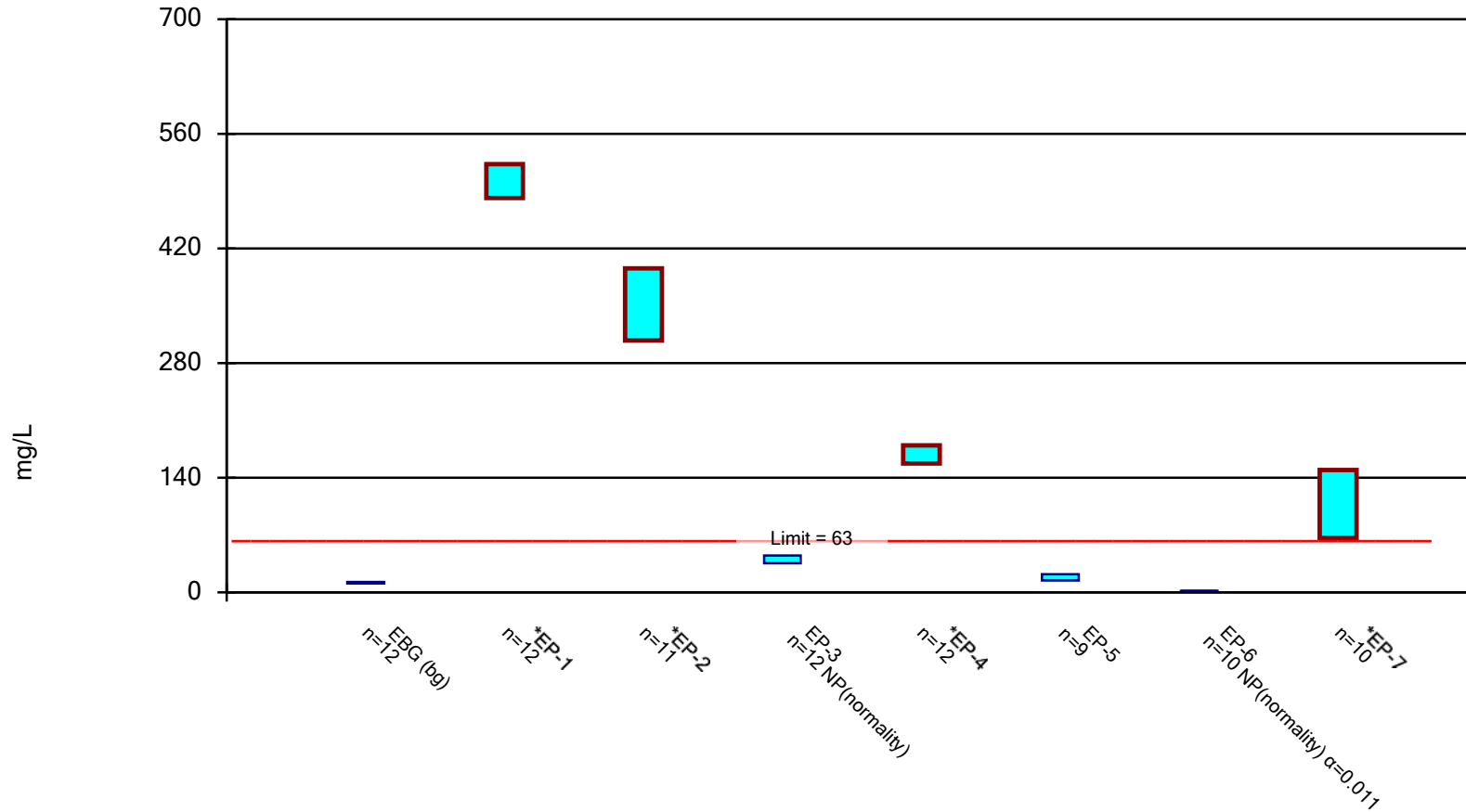


Constituent: Cadmium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

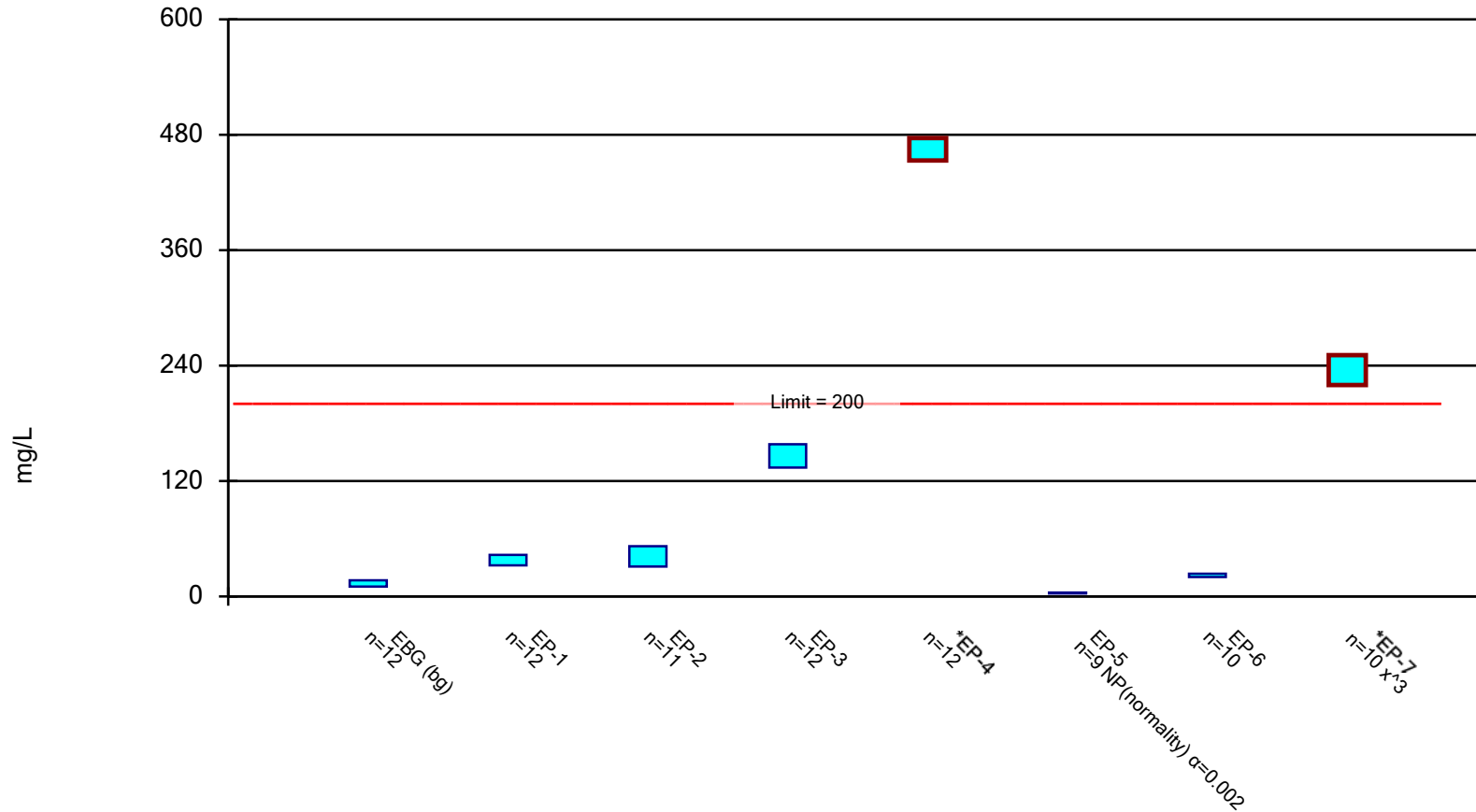


Constituent: Calcium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

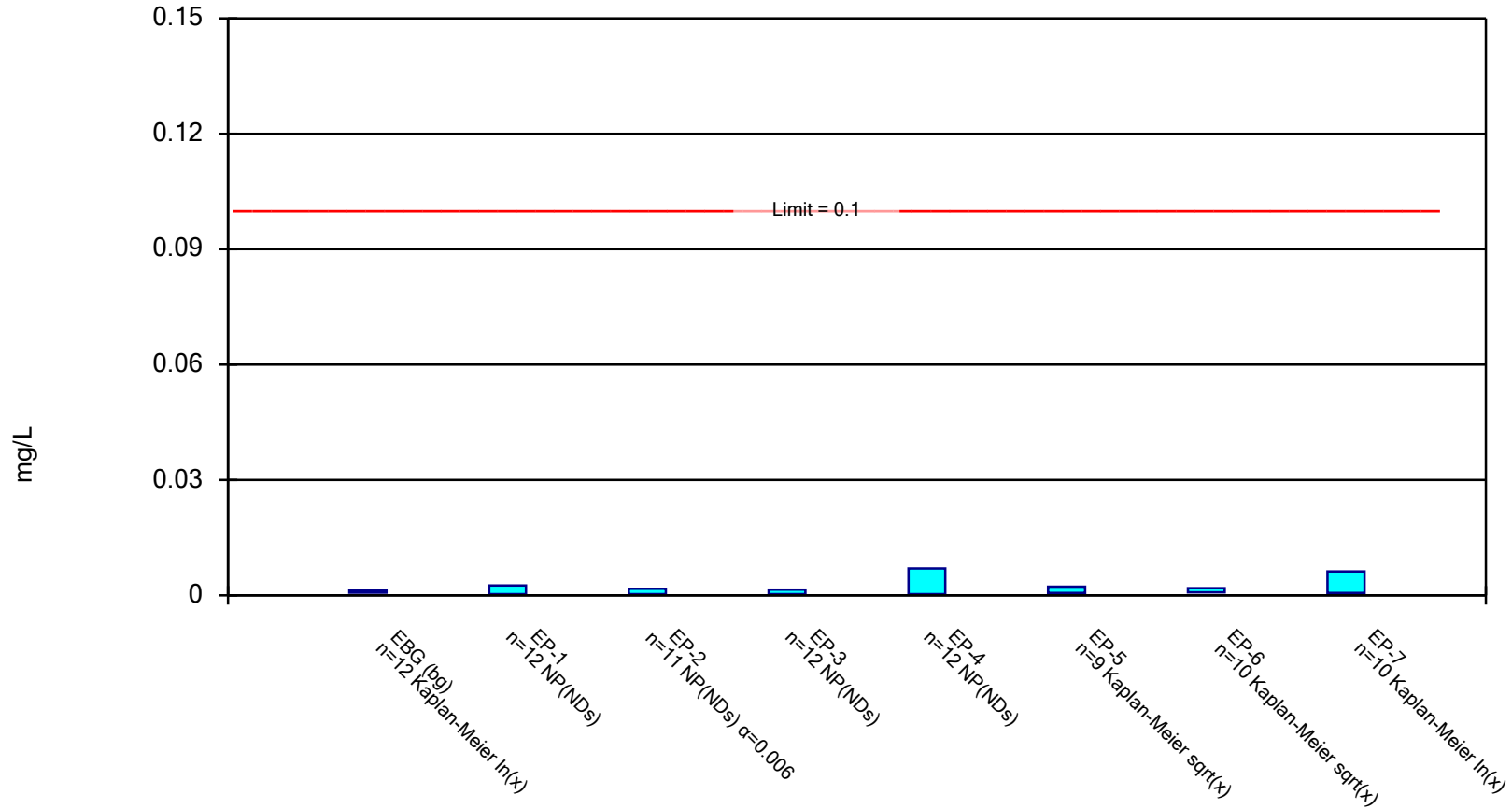


Constituent: Chloride Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

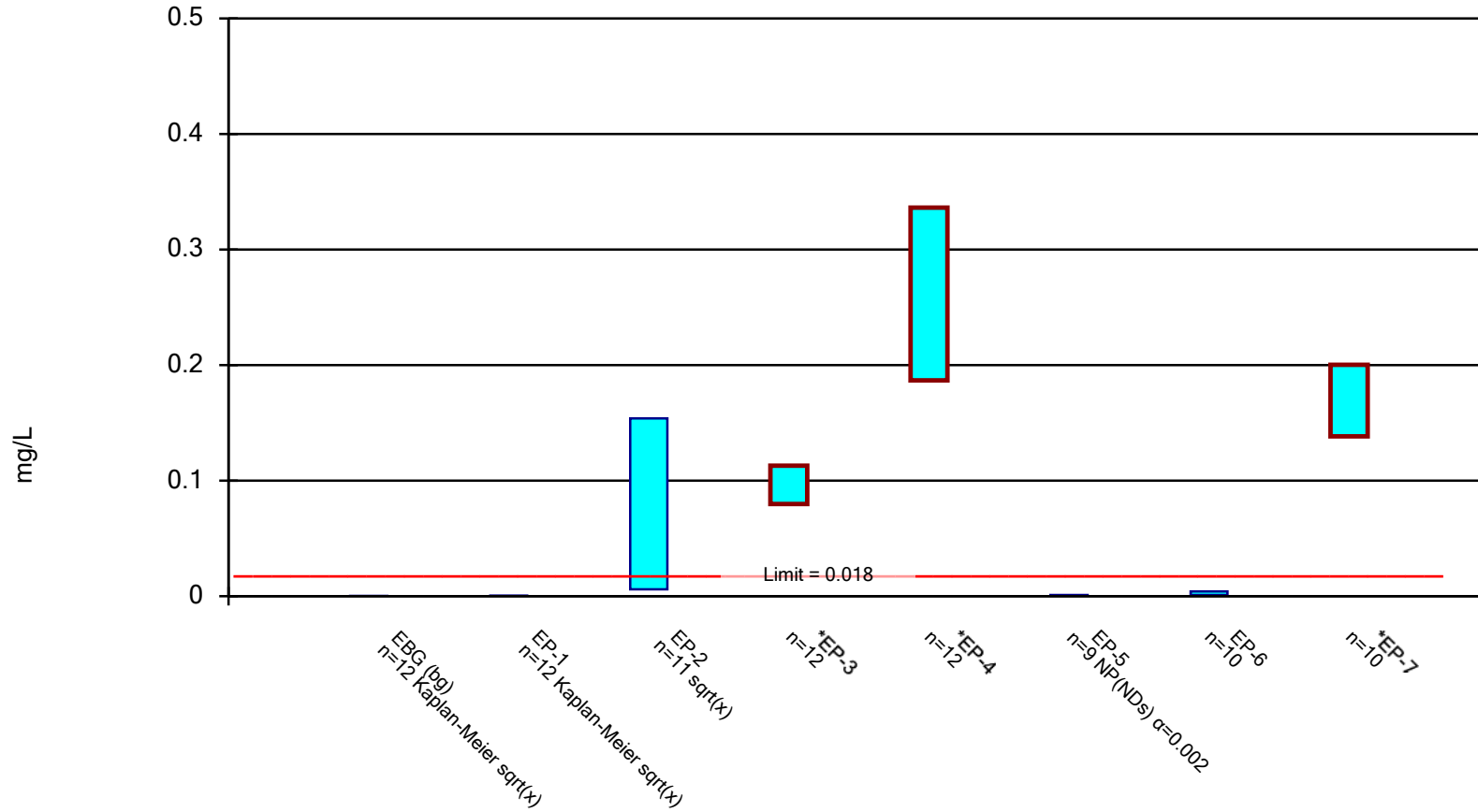


Constituent: Chromium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

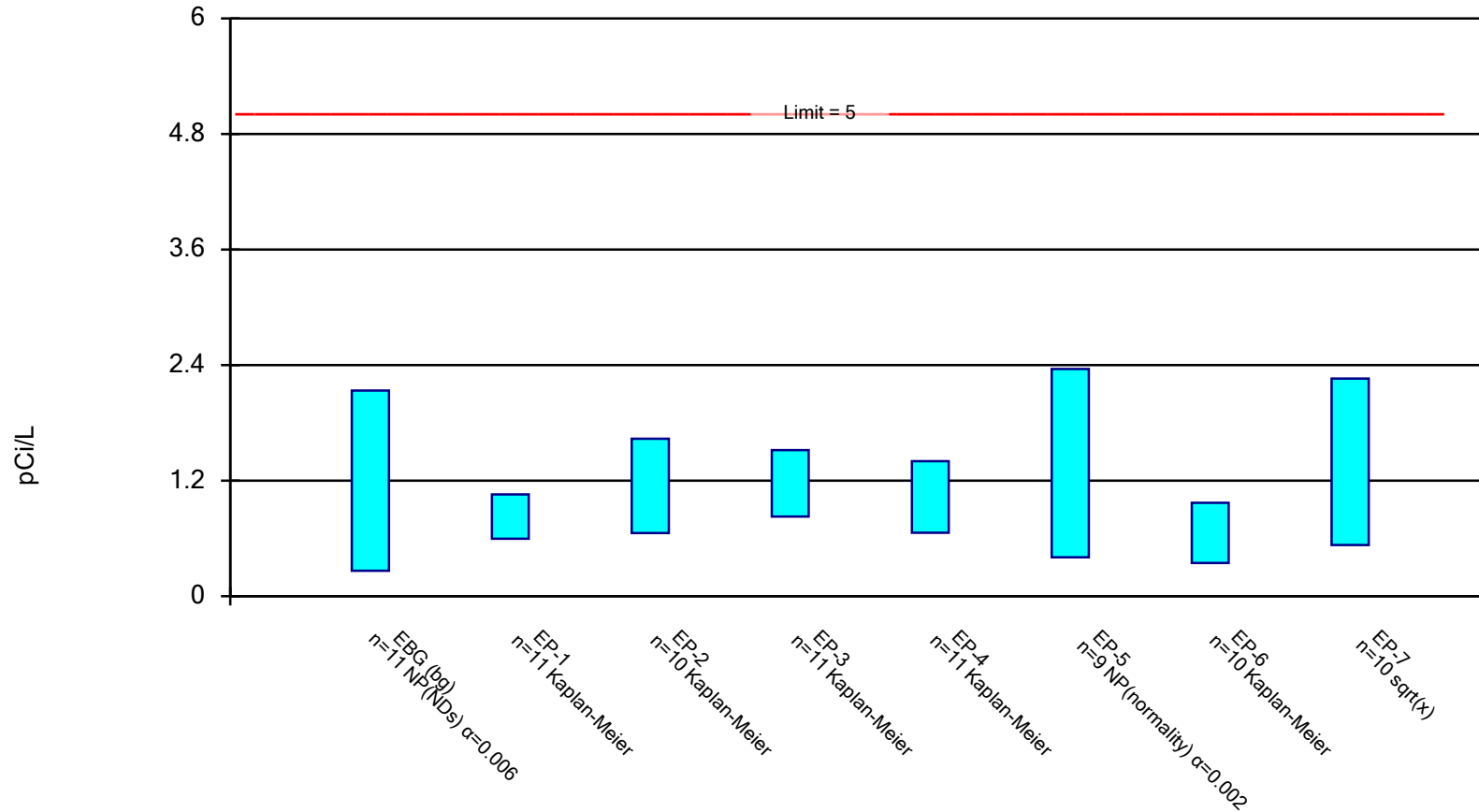


Constituent: Cobalt Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

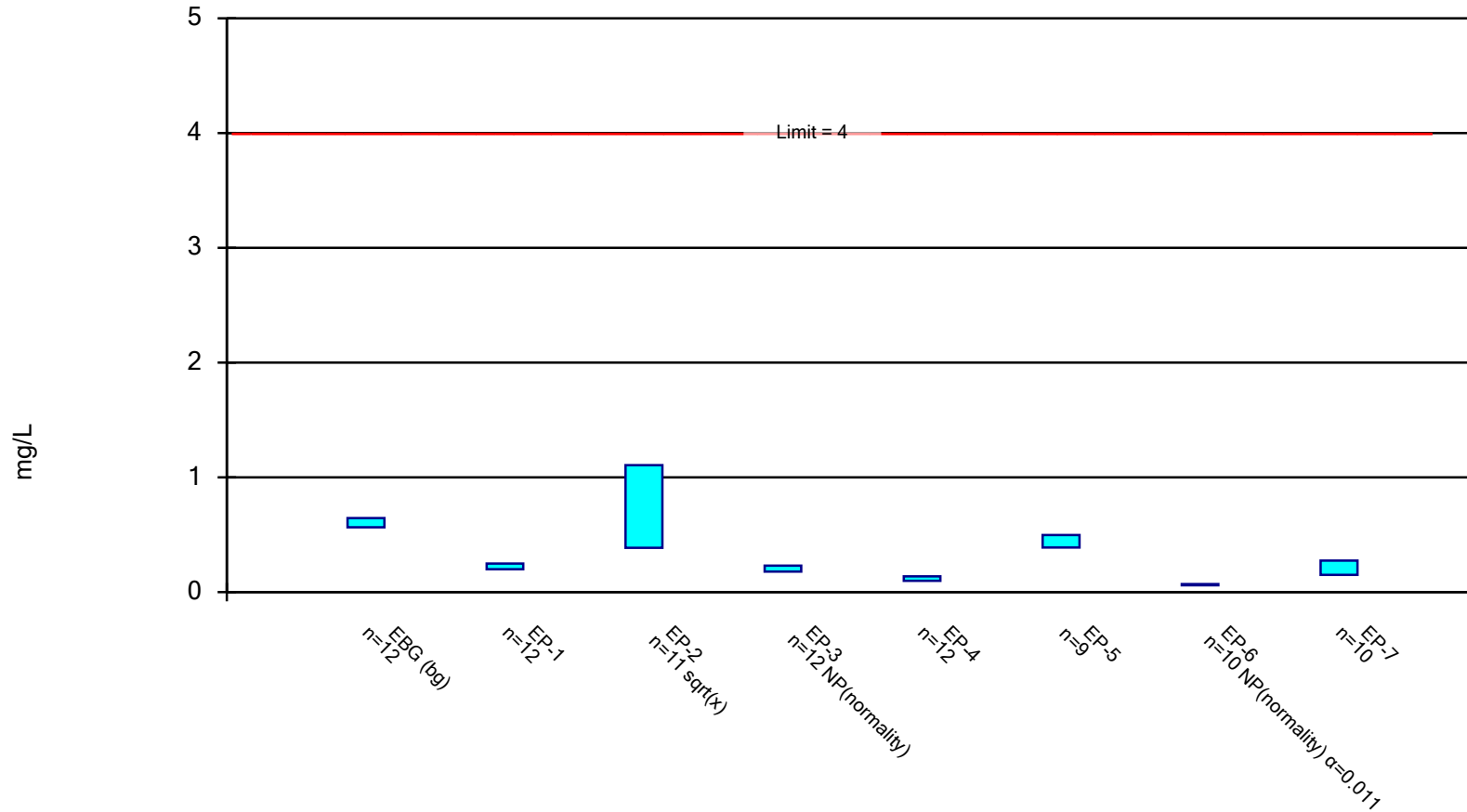


Constituent: Combined Radium    Analysis Run 4/22/2024 12:02 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database 2023 Q4



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

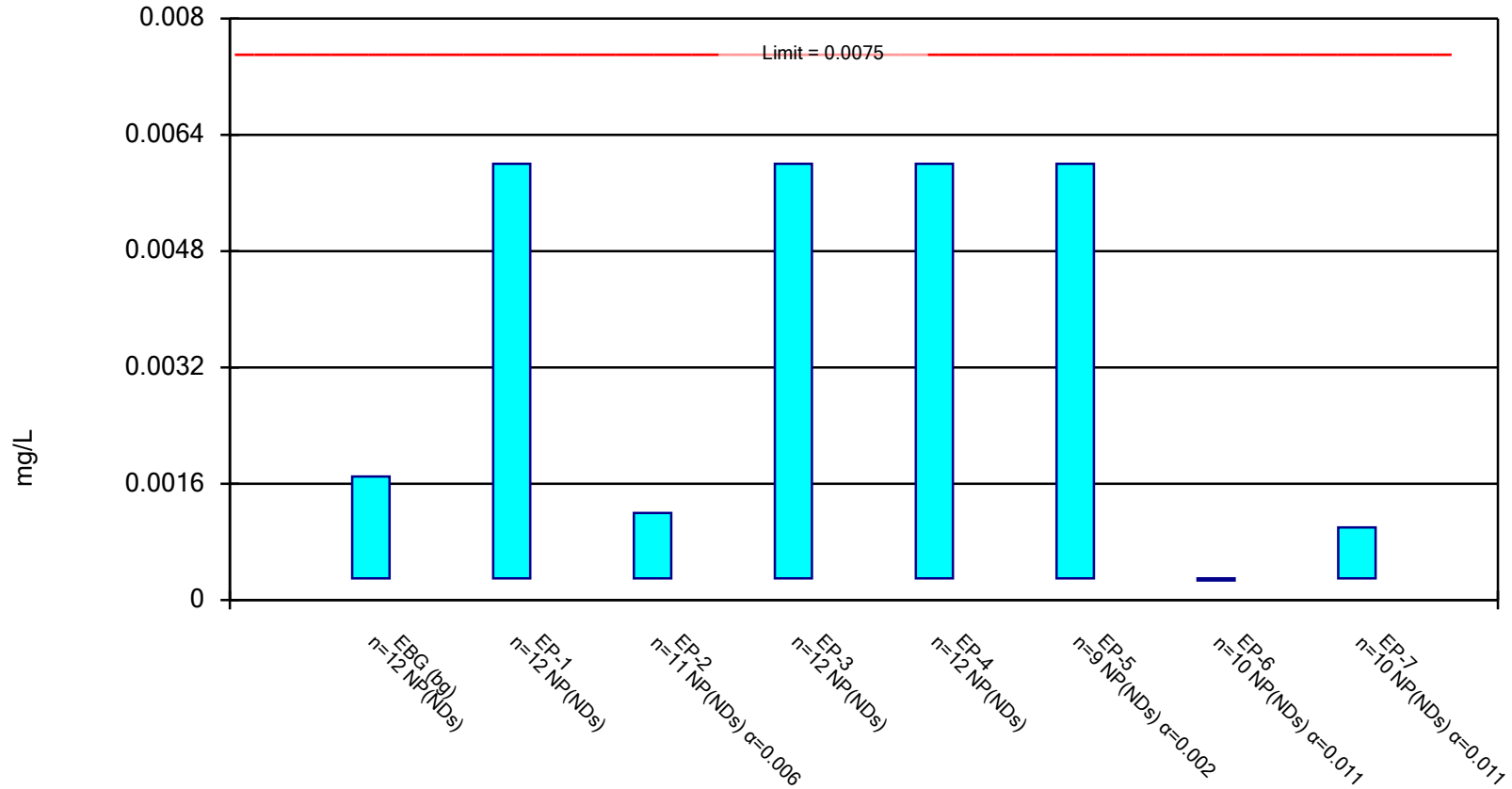


Constituent: Fluoride Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

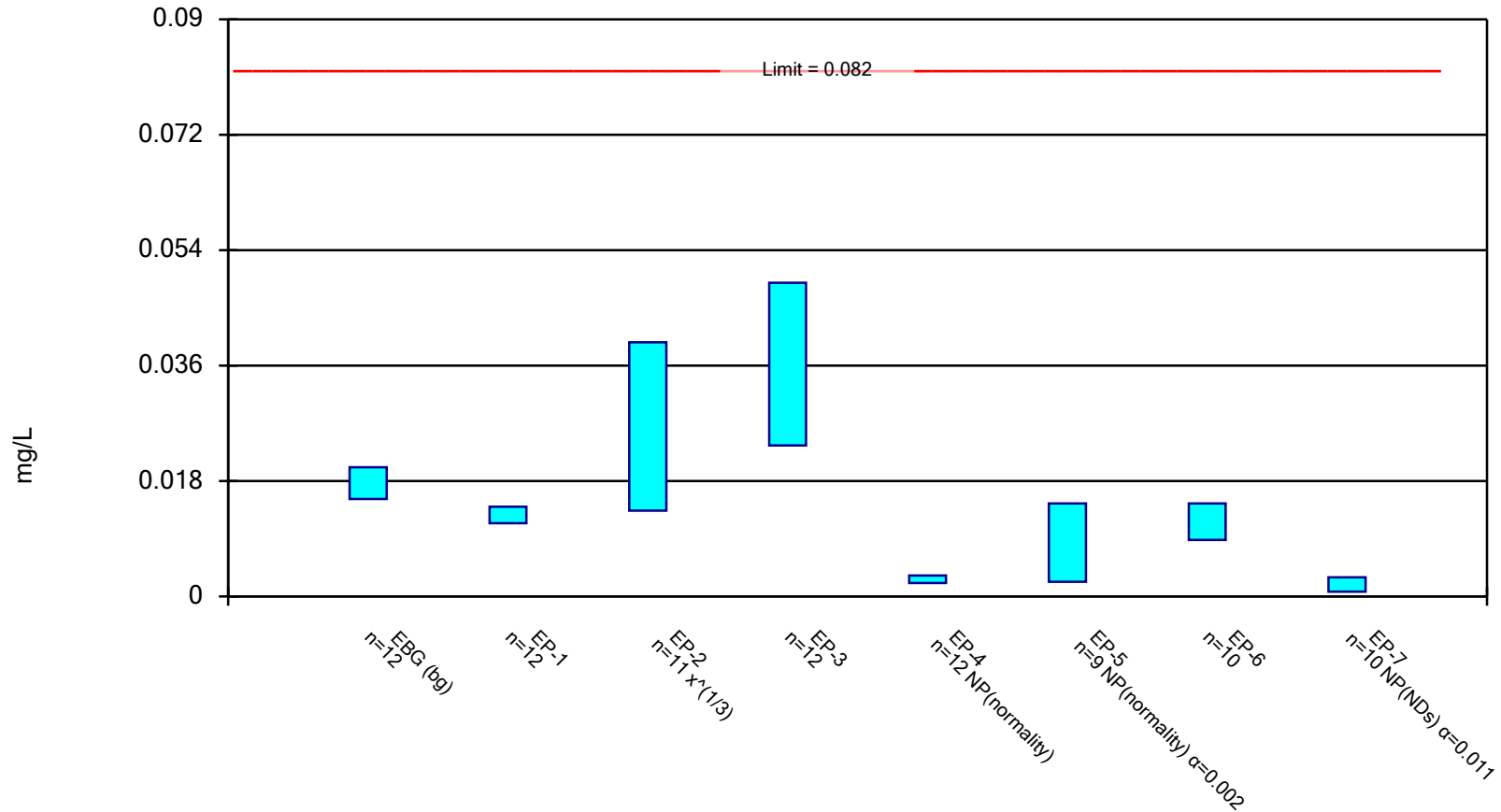


Constituent: Lead Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

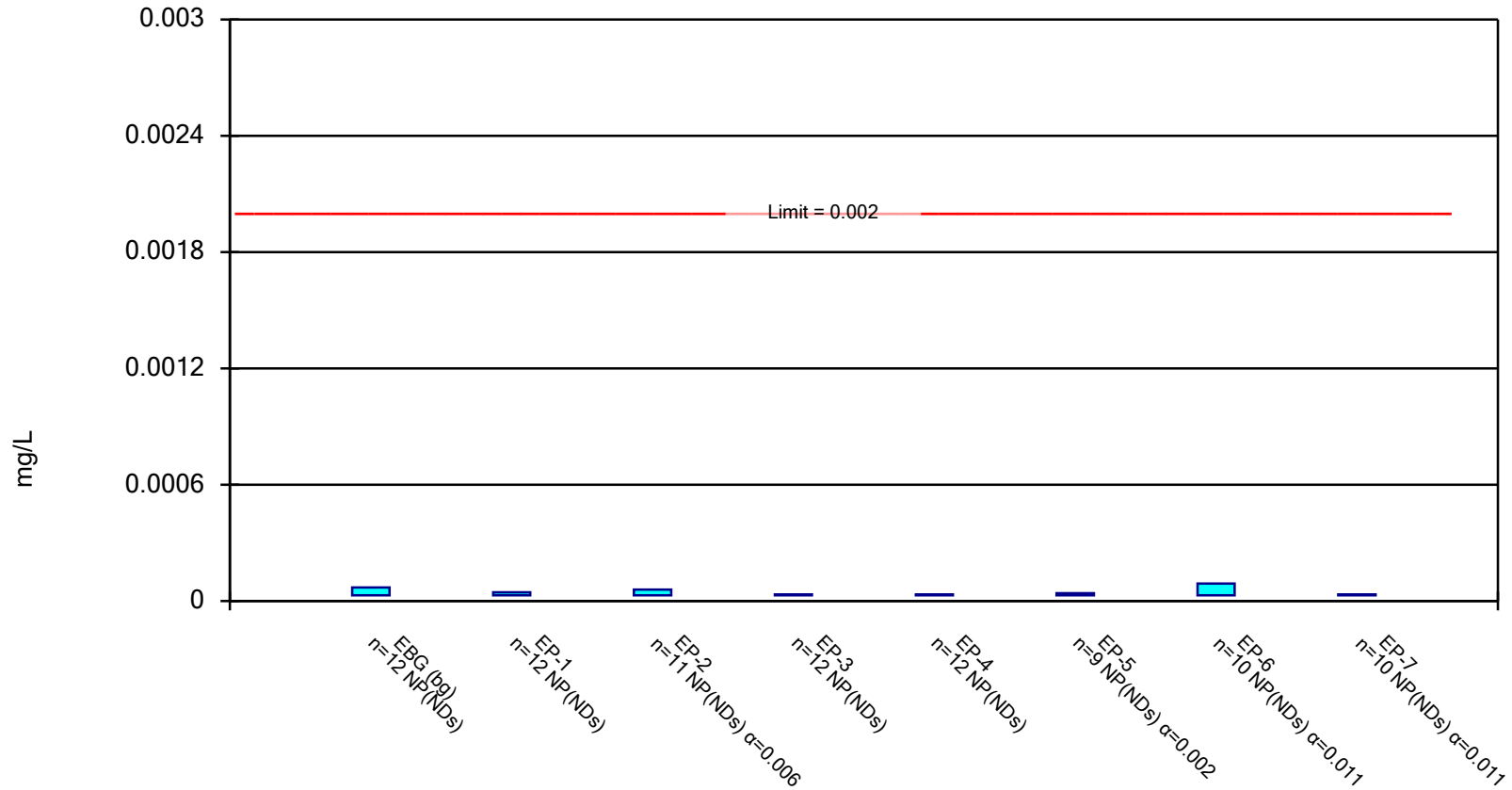


Constituent: Lithium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

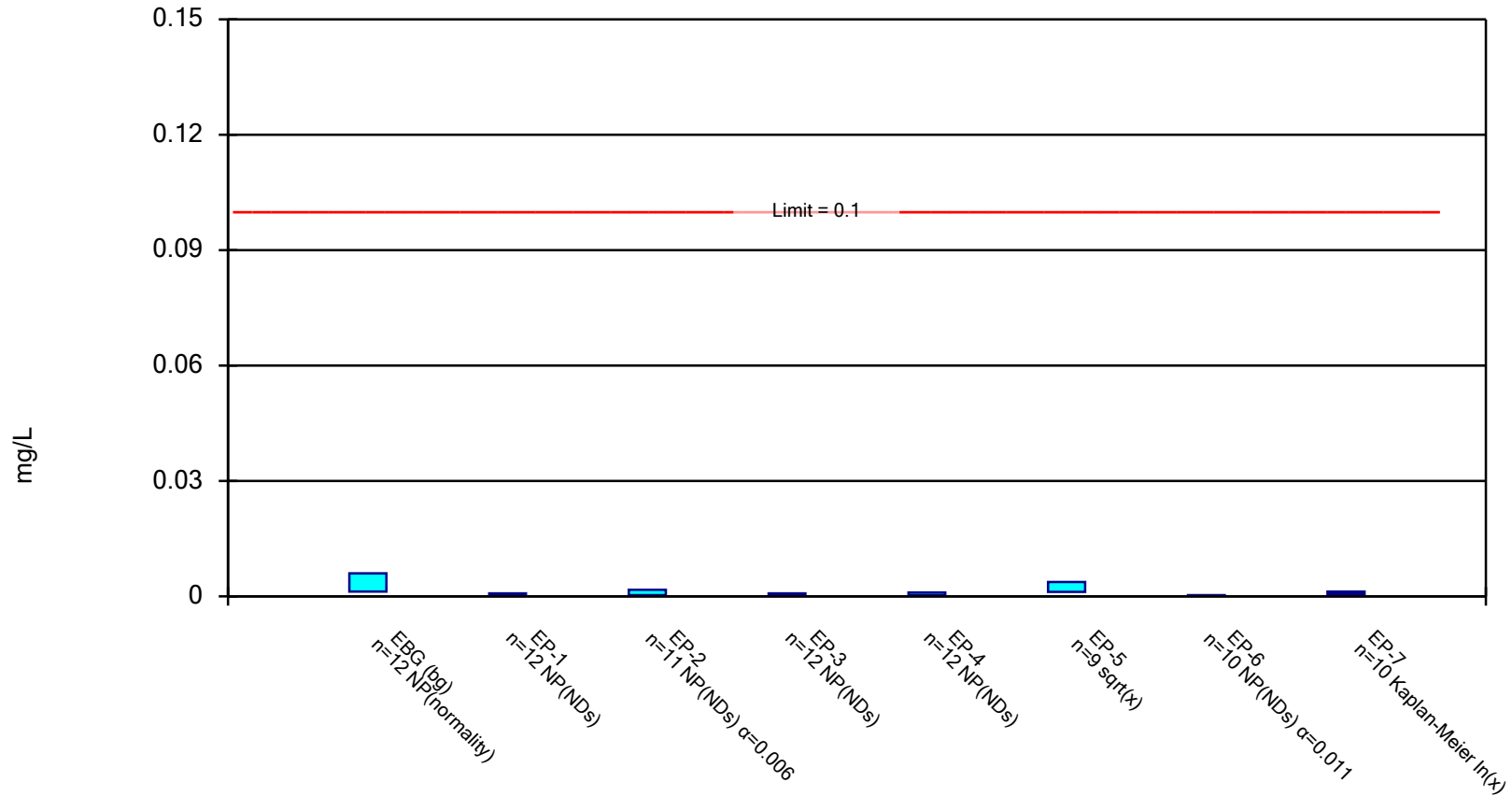


Constituent: Mercury Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

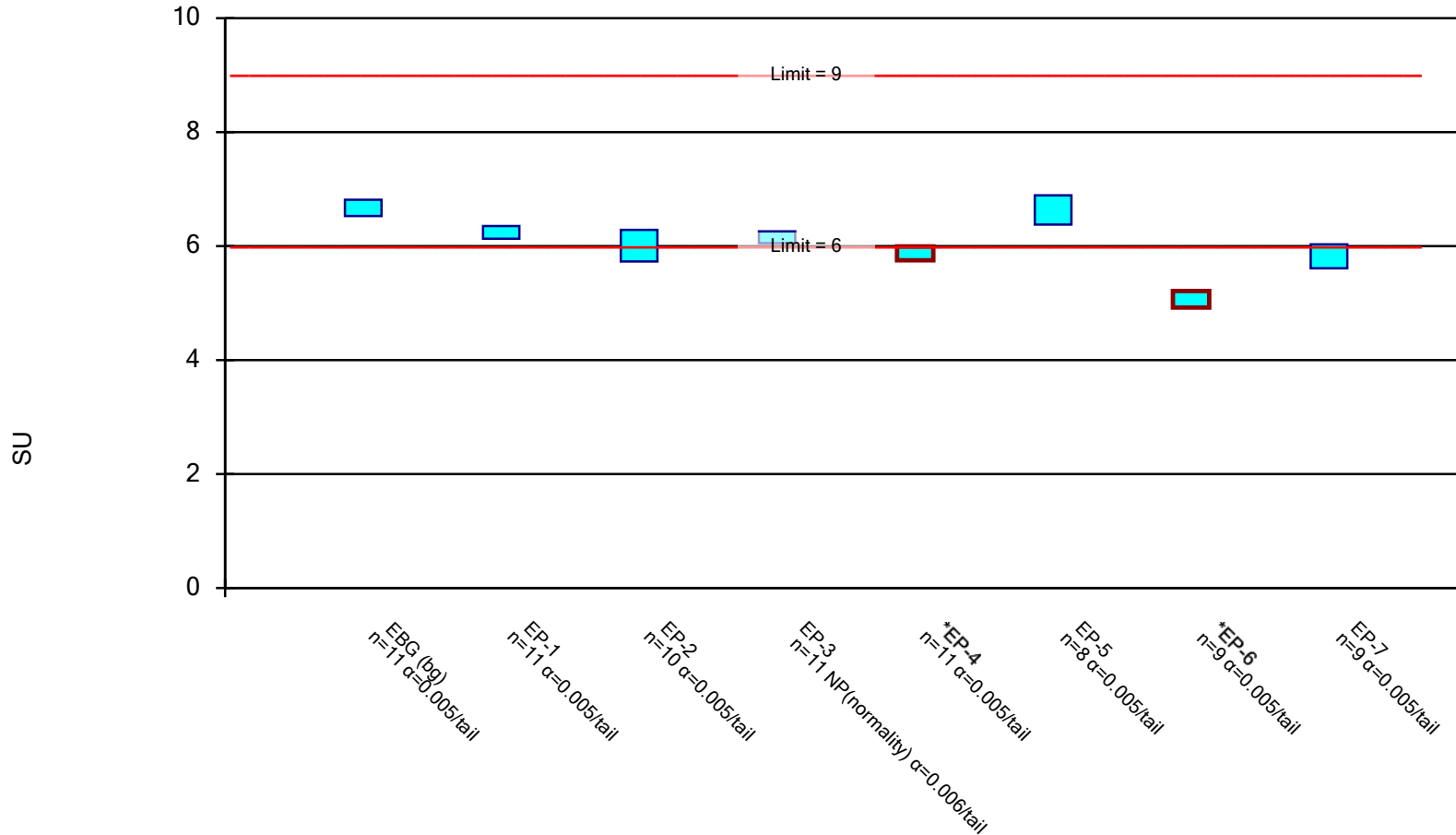


Constituent: Molybdenum Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Normality Test: Shapiro Wilk, alpha based on n.

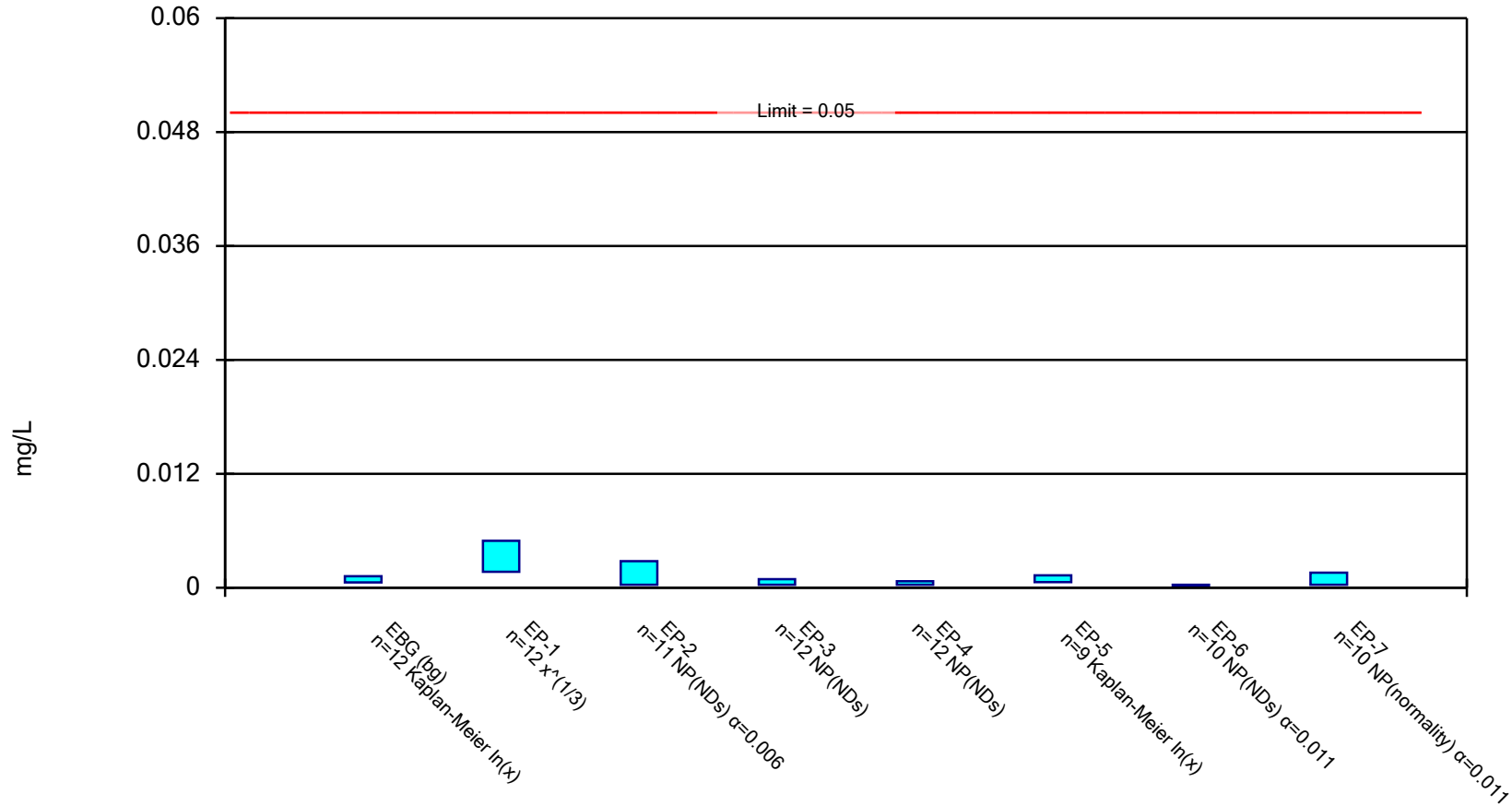


Constituent: pH Analysis Run 5/6/2024 10:42 AM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q1

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

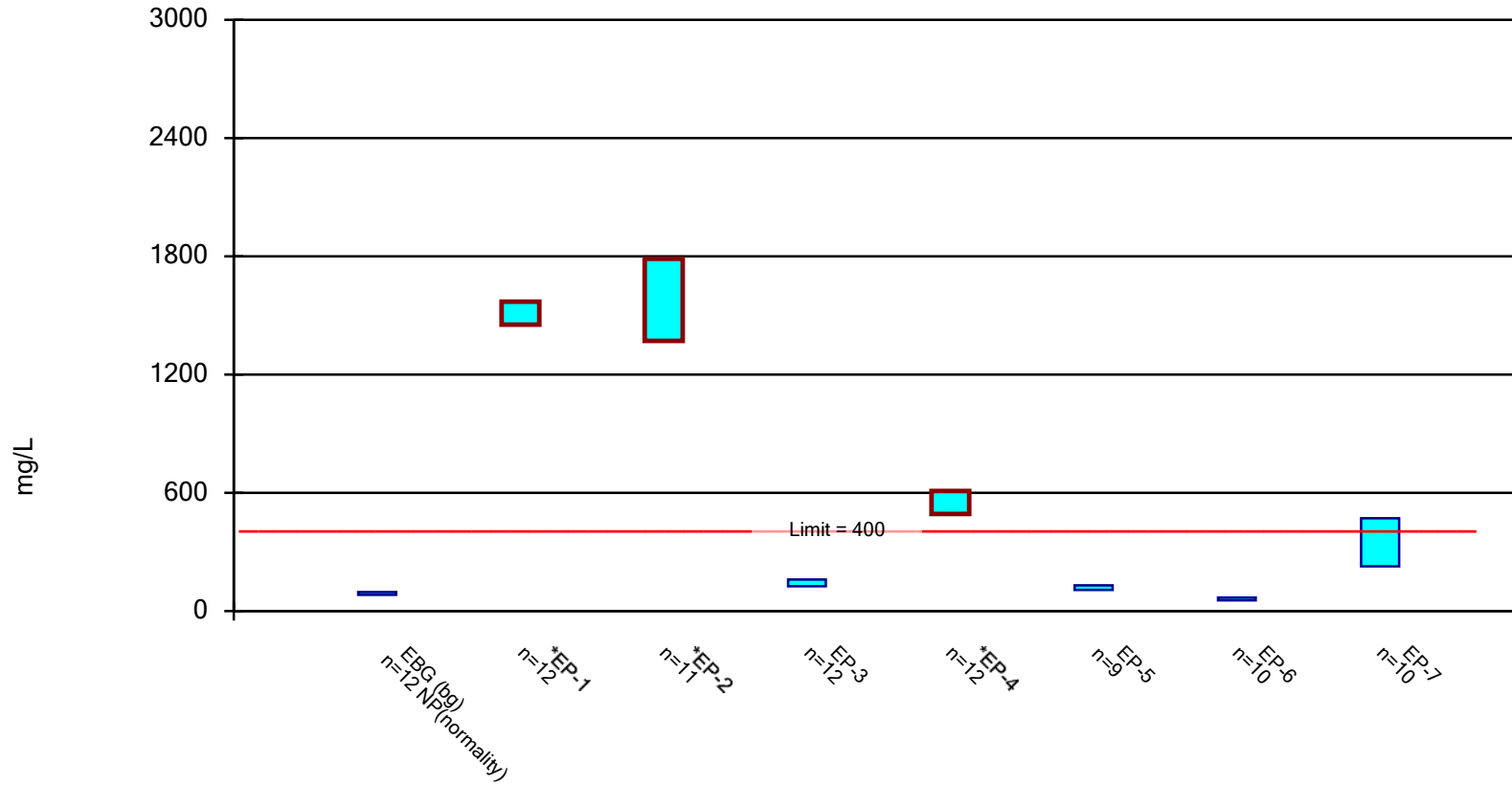


Constituent: Selenium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



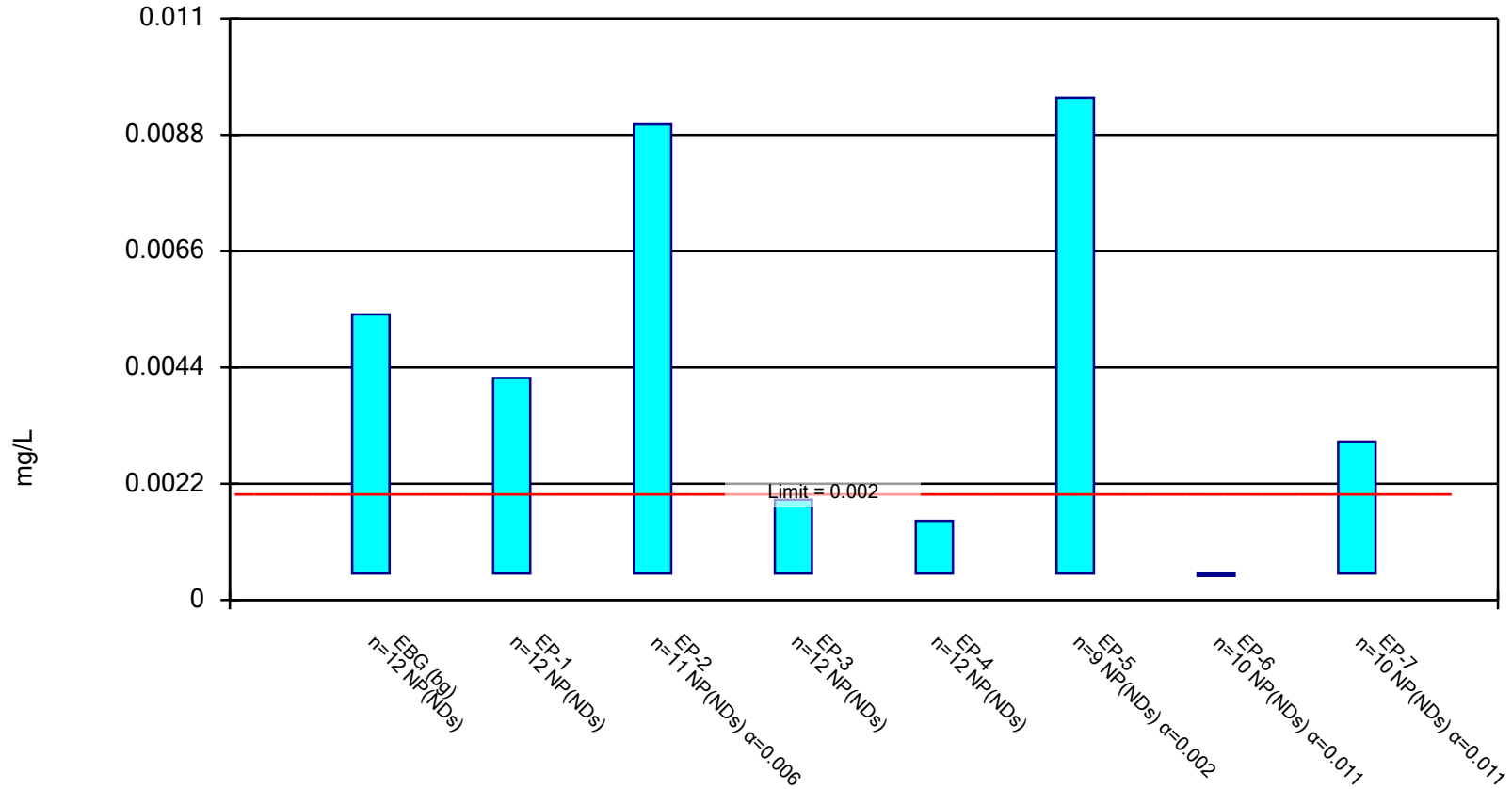
Constituent: Sulfate Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

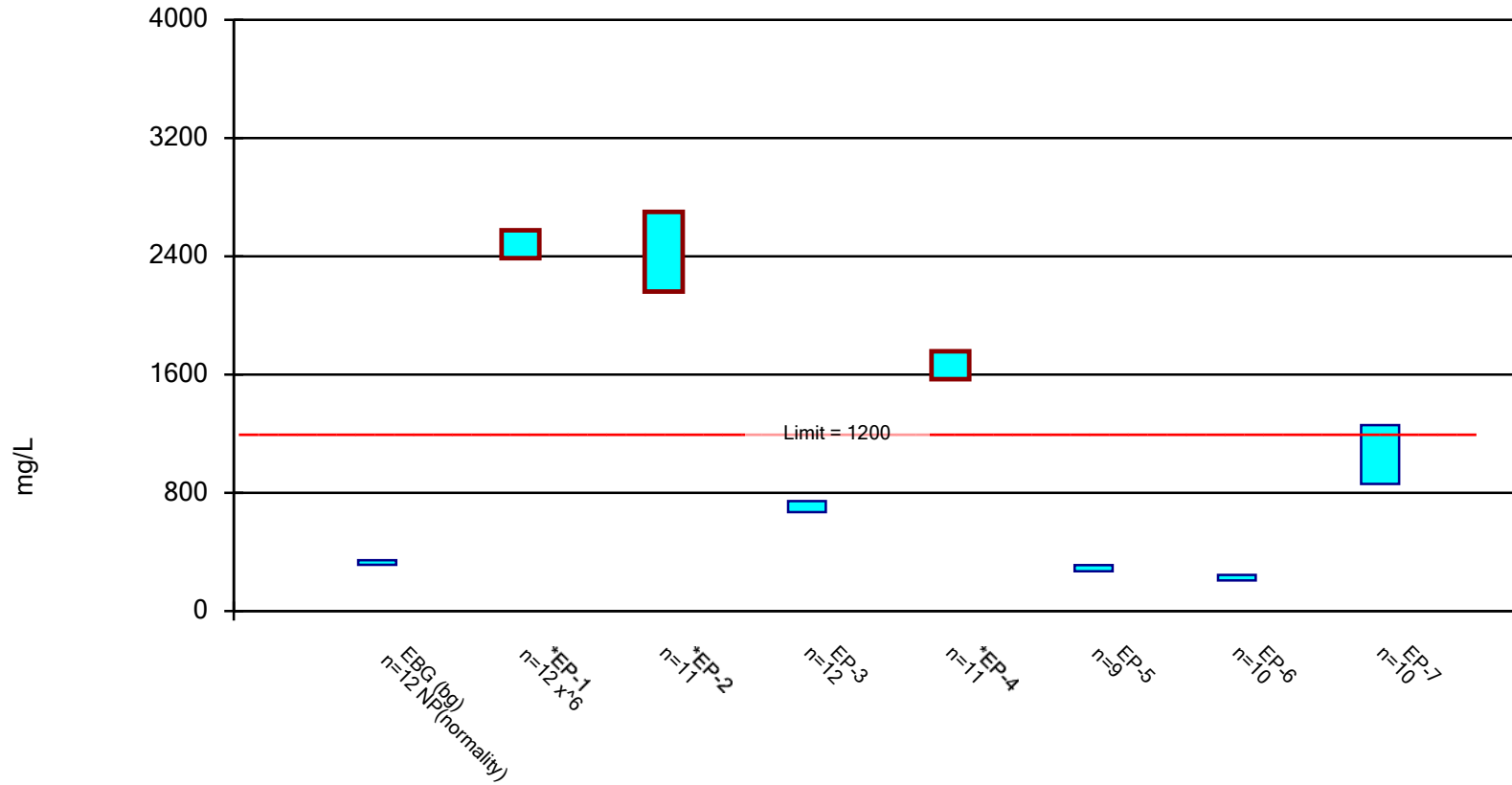


Constituent: Thallium Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



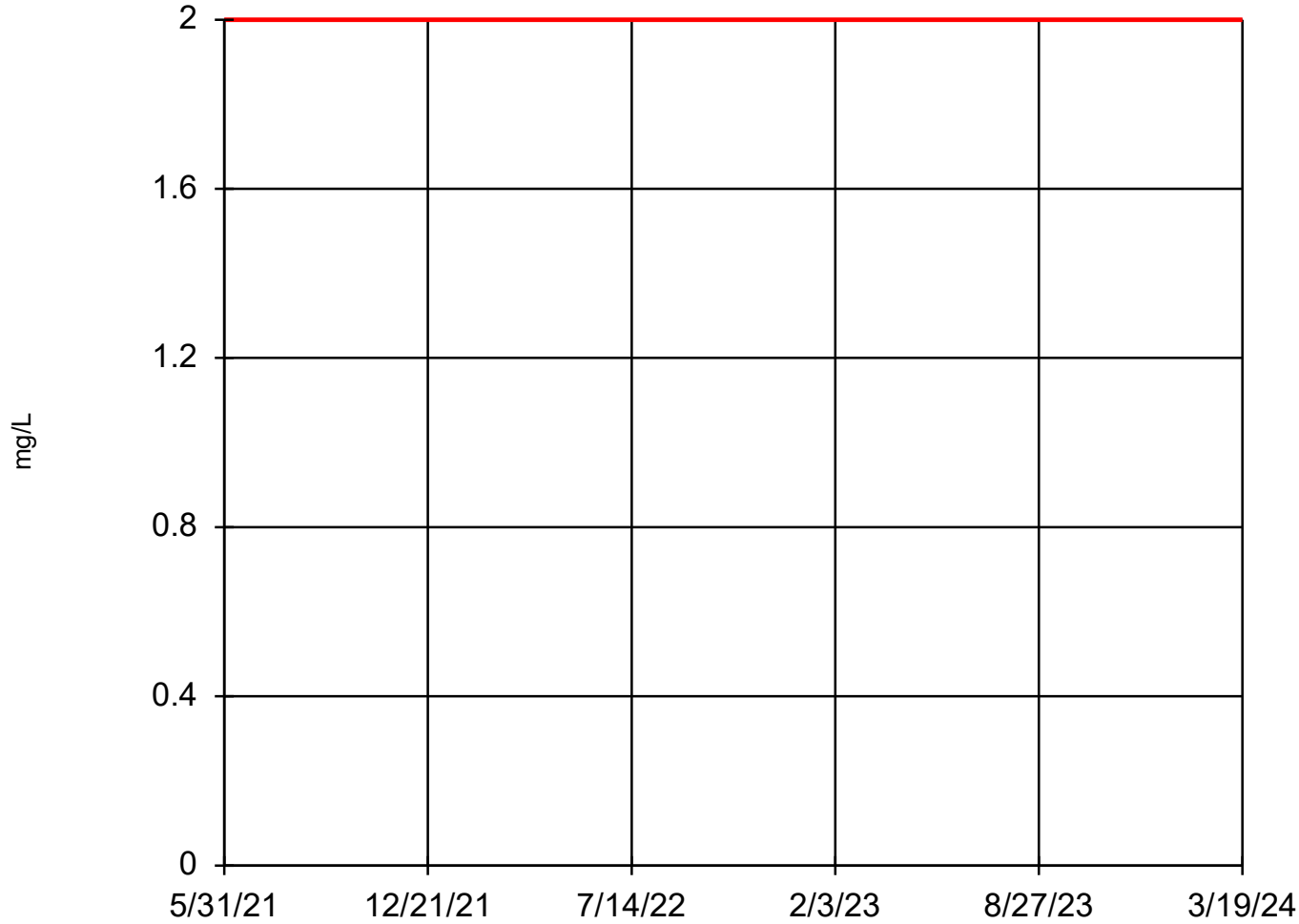
Constituent: Total Dissolved Solids Analysis Run 4/22/2024 12:02 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



# Boron

EP-4



n = 12

Slope = -0.5214  
units per year.

Mann-Kendall  
statistic = -40  
critical = -35

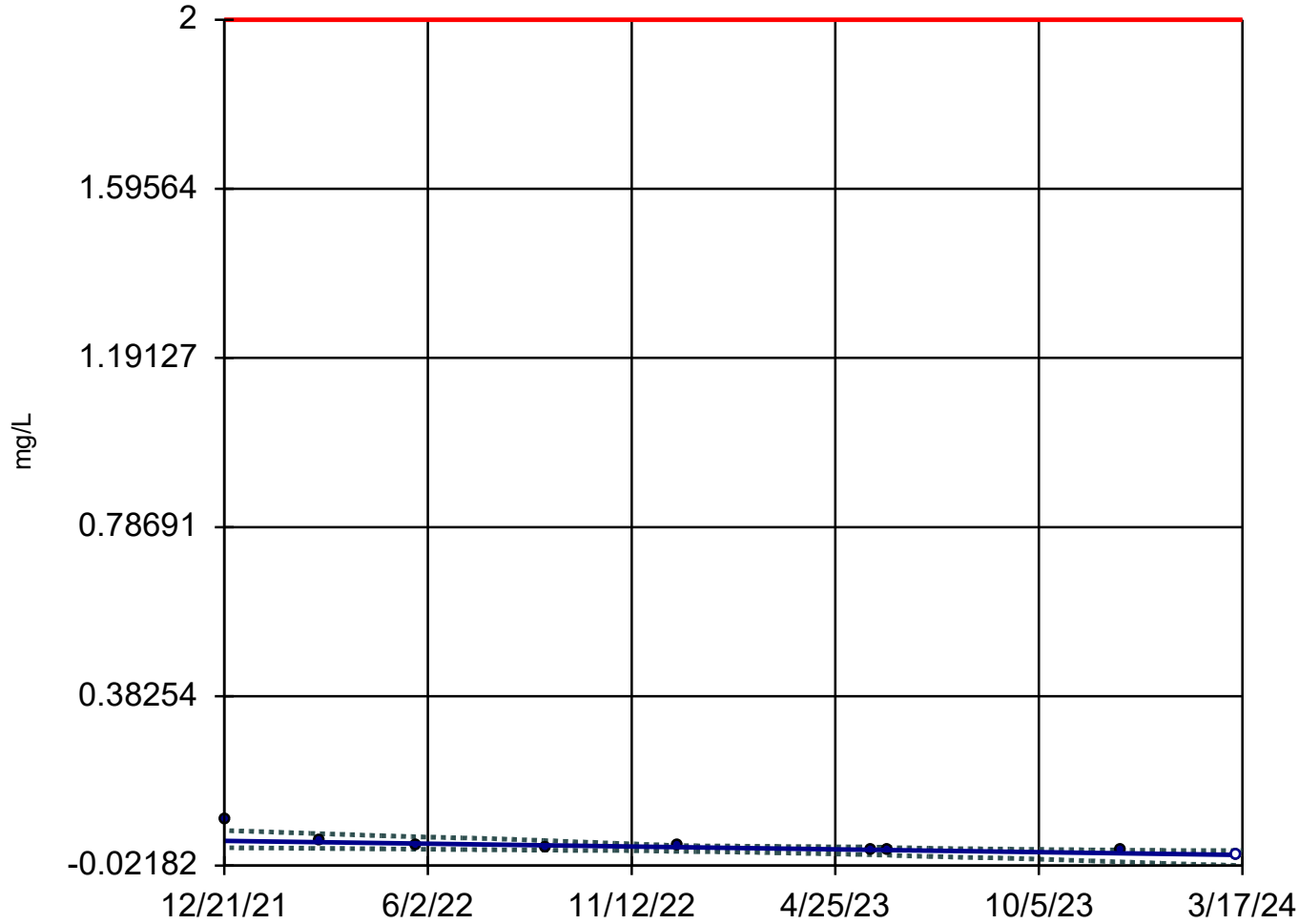
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
above (2).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Boron

## EP-5

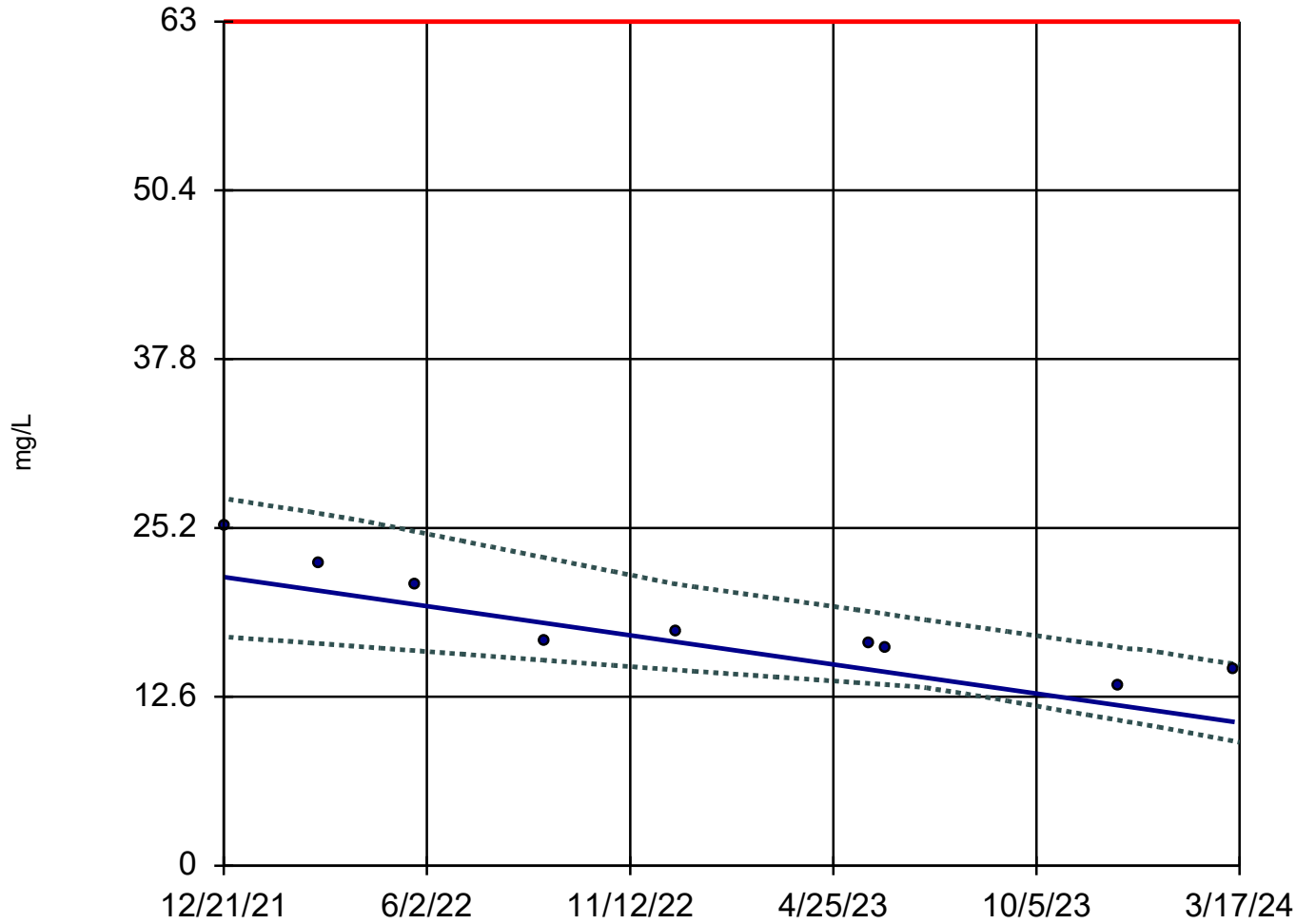


n = 9  
Slope = -0.01489  
units per year.  
Mann-Kendall  
statistic = -27  
critical = -23  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (2).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Calcium

## EP-5

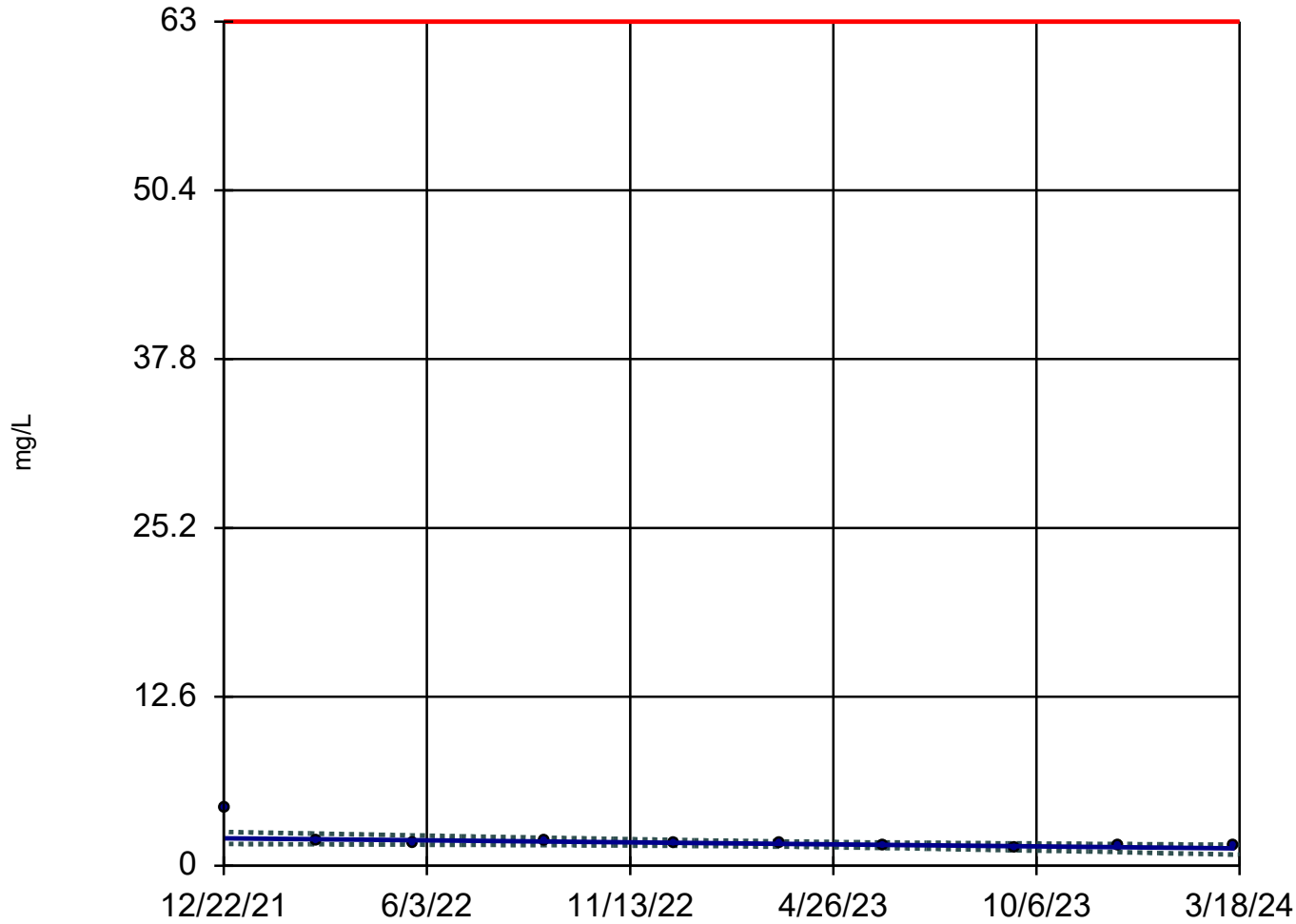


n = 9  
Slope = -4.855  
units per year.  
Mann-Kendall  
statistic = -32  
critical = -23  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (63).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Calcium

## EP-6

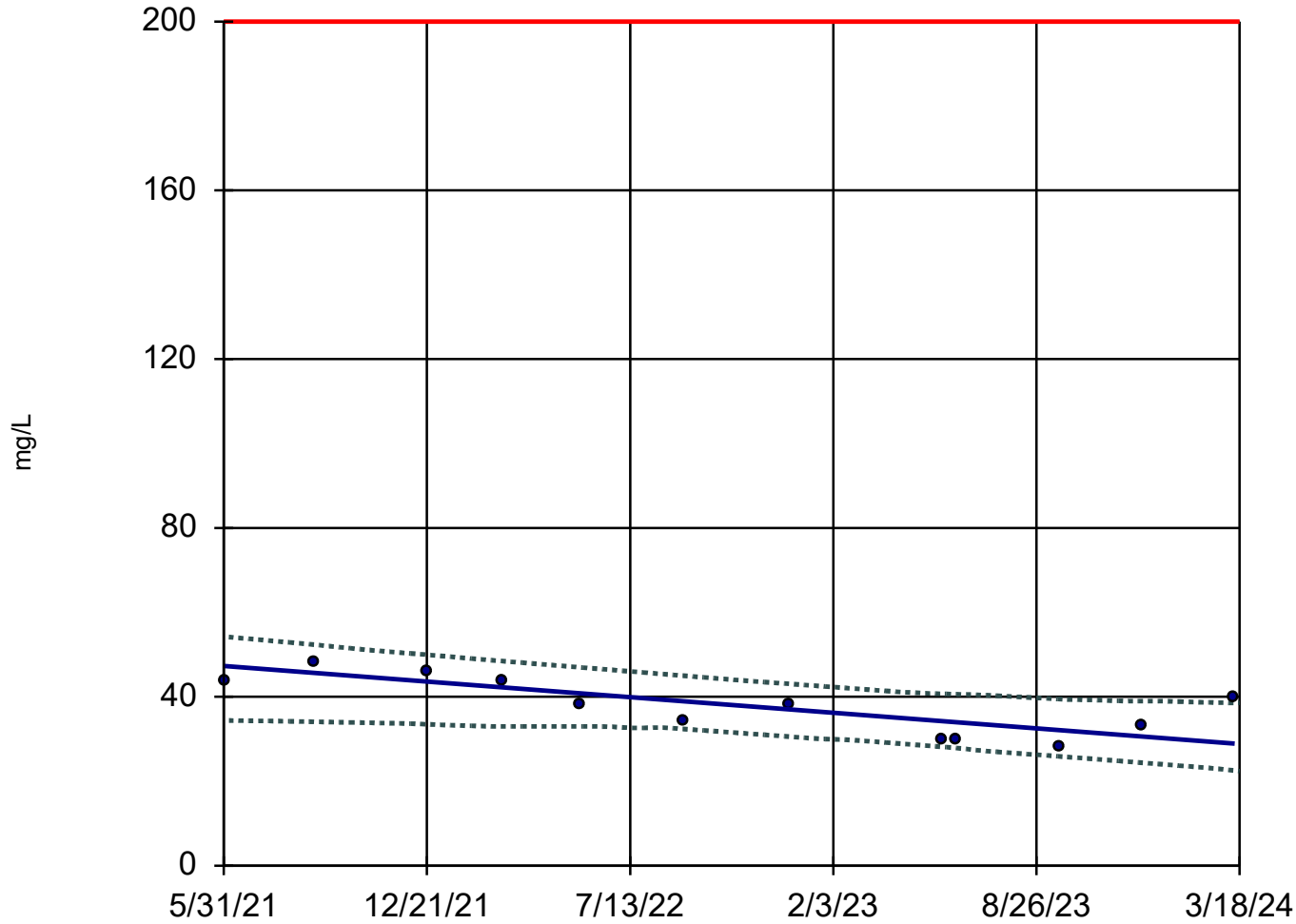


n = 10  
Slope = -0.3442  
units per year.  
Mann-Kendall  
statistic = -33  
critical = -27  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (63).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Chloride

## EP-1



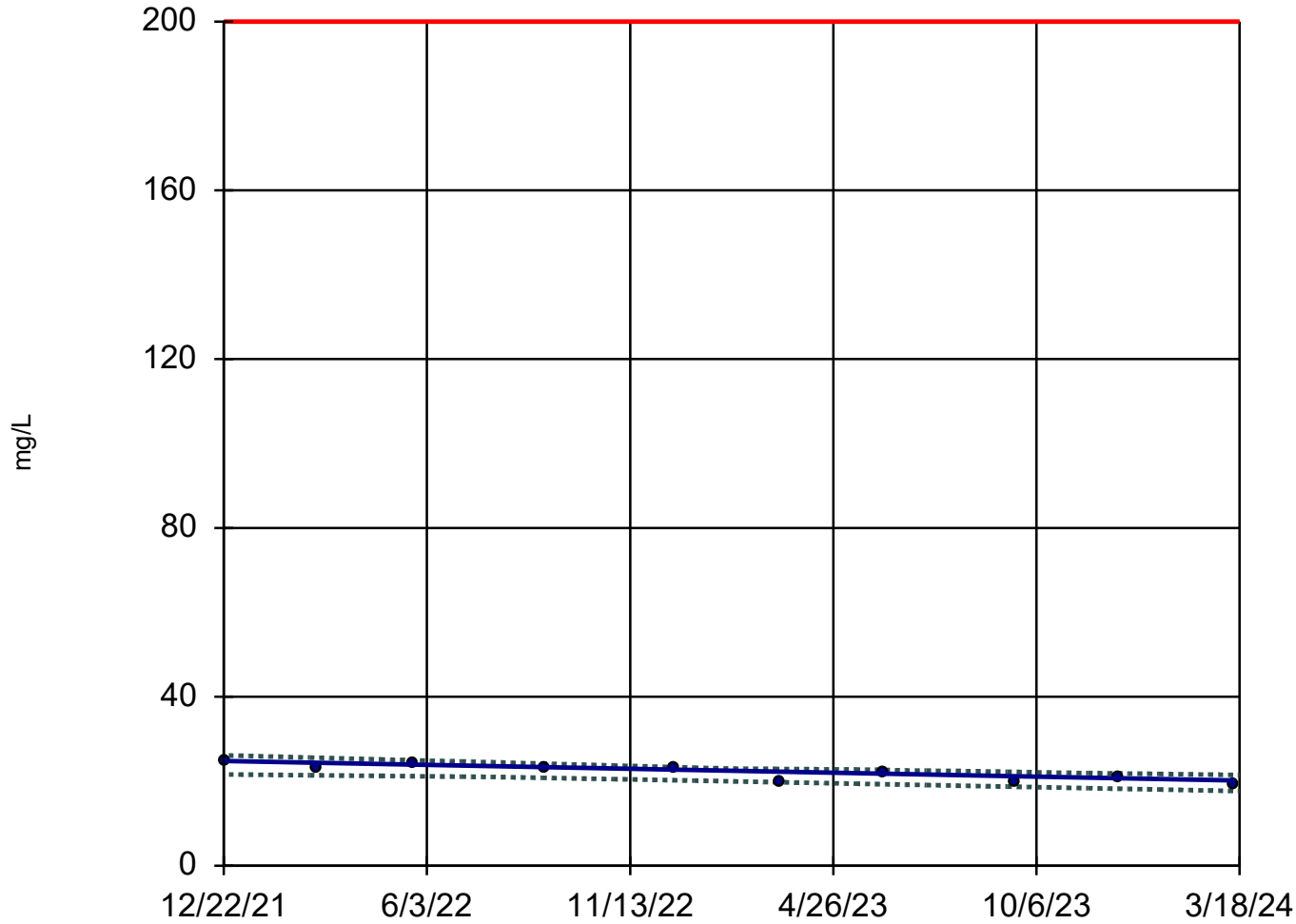
n = 12  
Slope = -6.581  
units per year.  
Mann-Kendall  
statistic = -37  
critical = -35  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below (200).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



# Chloride

## EP-6



n = 10

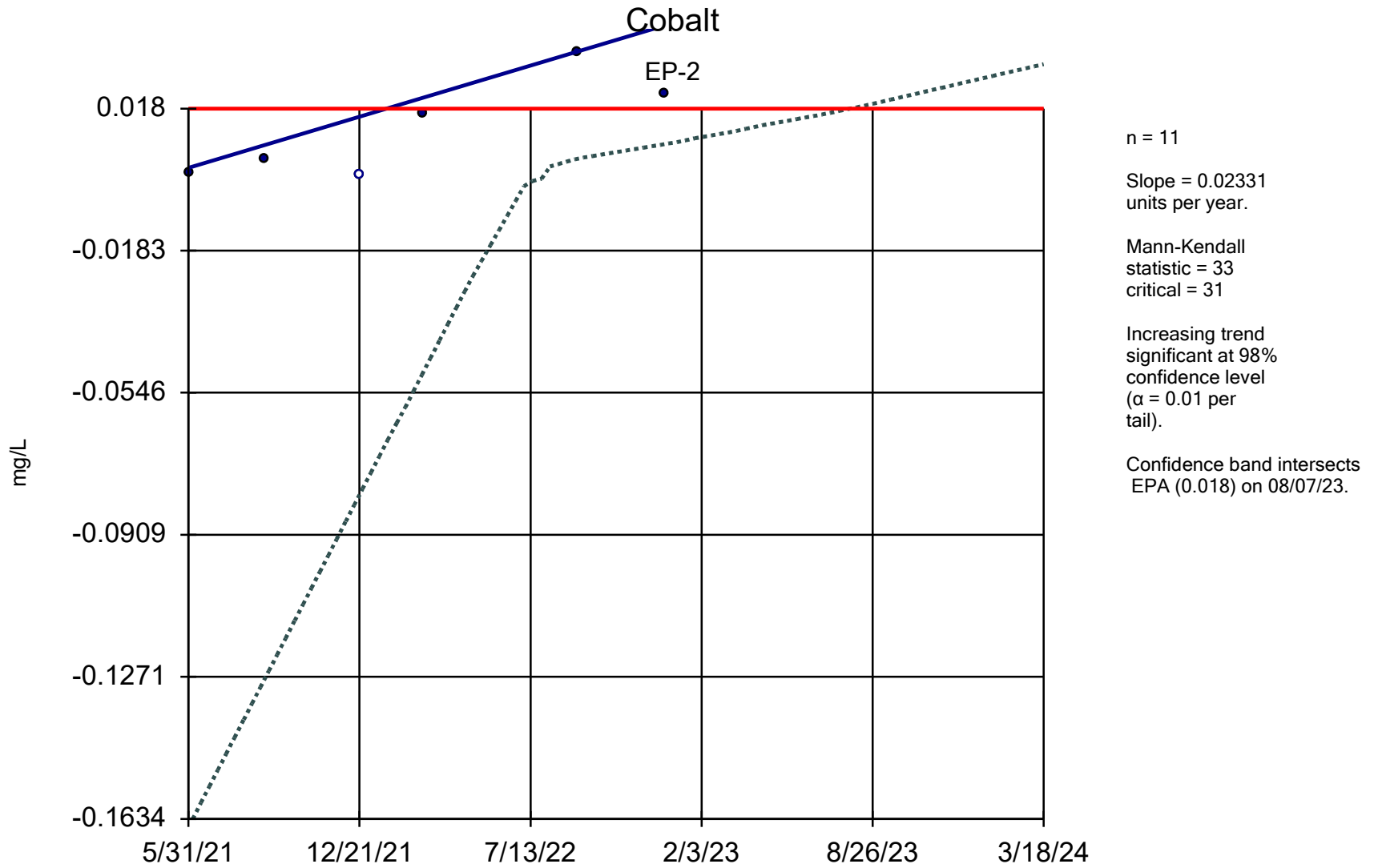
Slope = -2.062  
units per year.

Mann-Kendall  
statistic = -33  
critical = -27

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
below (200).

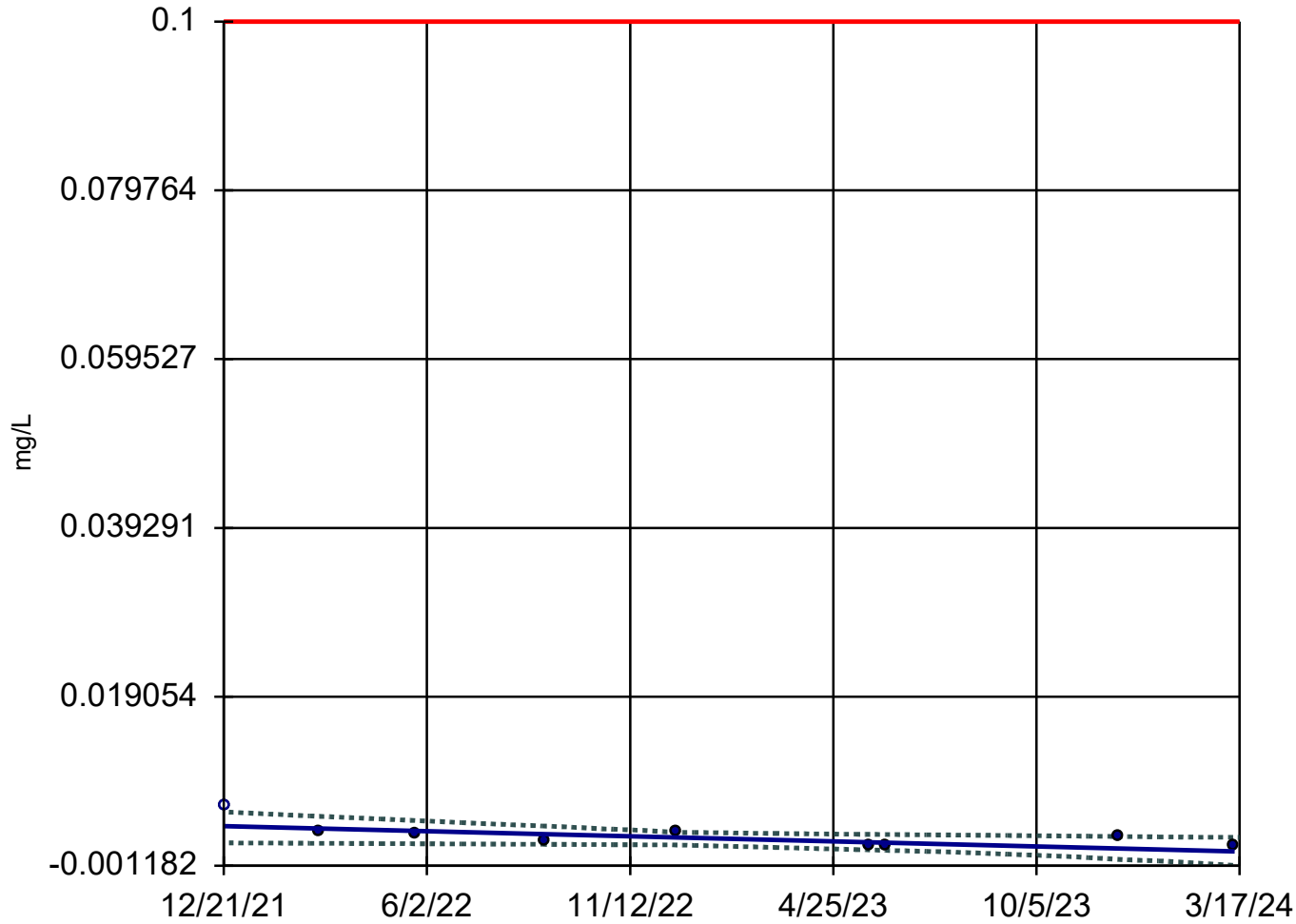
Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:38 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

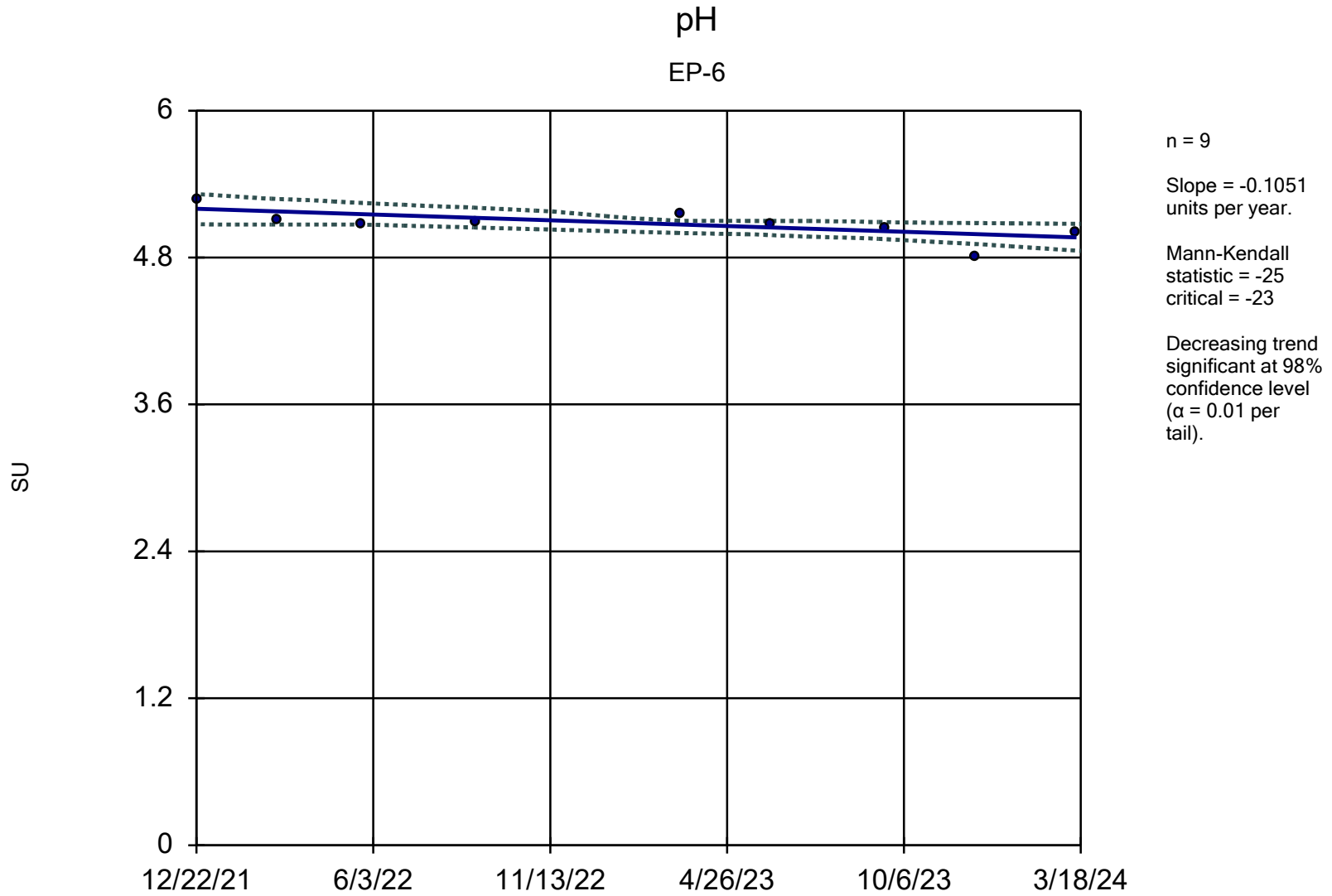
# Molybdenum

## EP-5



n = 9  
Slope = -0.001353  
units per year.  
Mann-Kendall  
statistic = -25  
critical = -23  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.1).

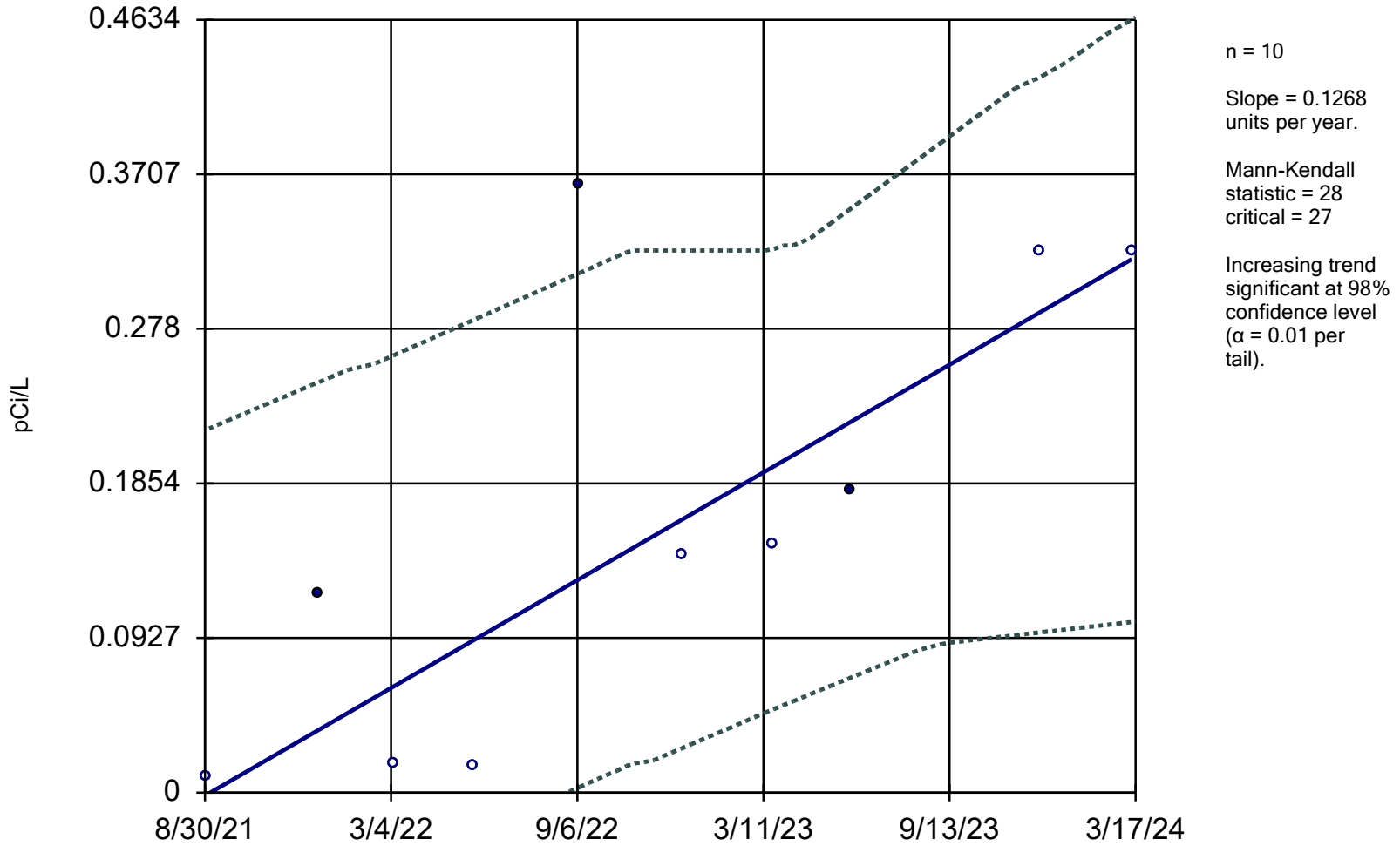
Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:39 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4



Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:39 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Radium 226

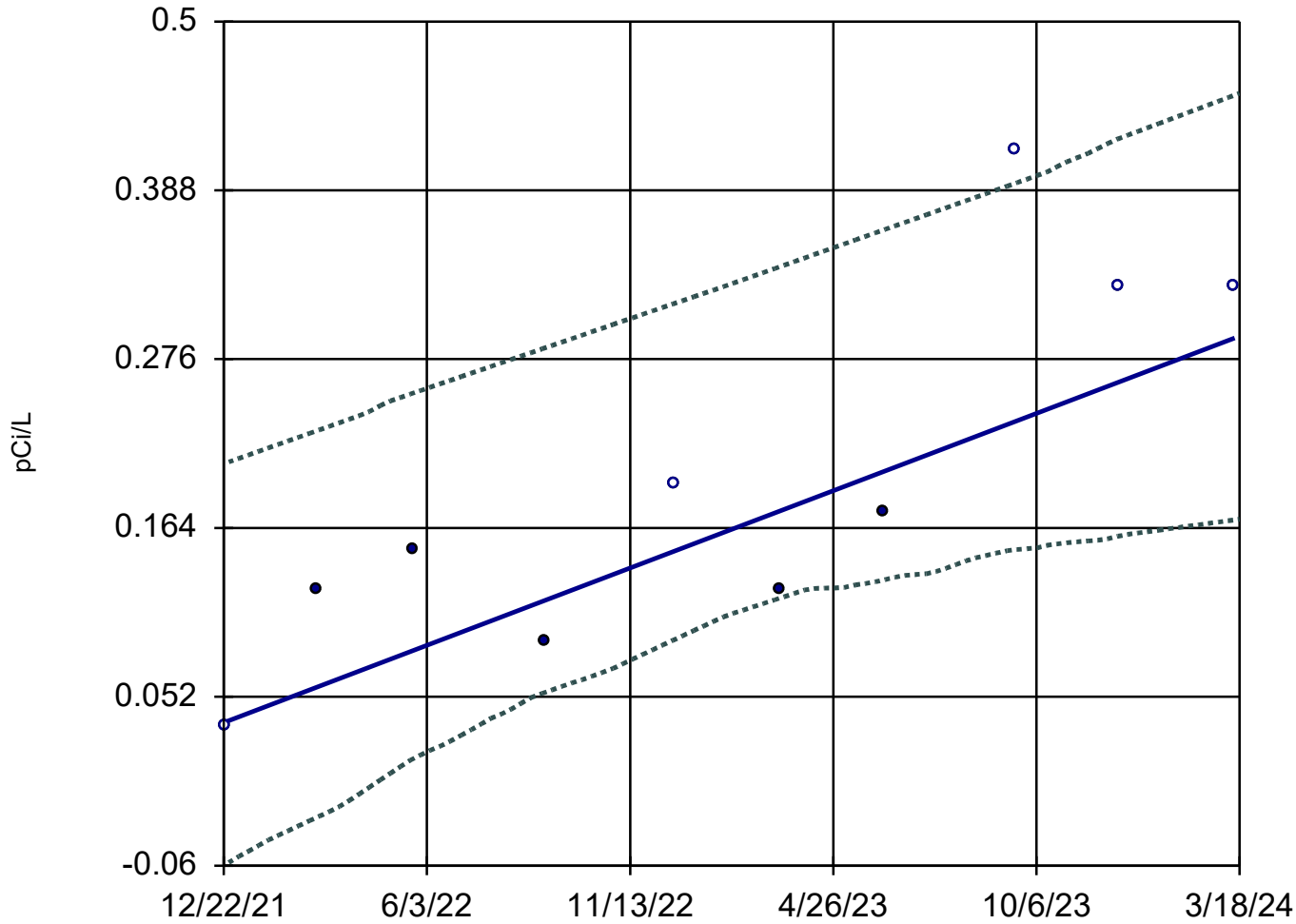
## EP-2



Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:39 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Radium 226

EP-6

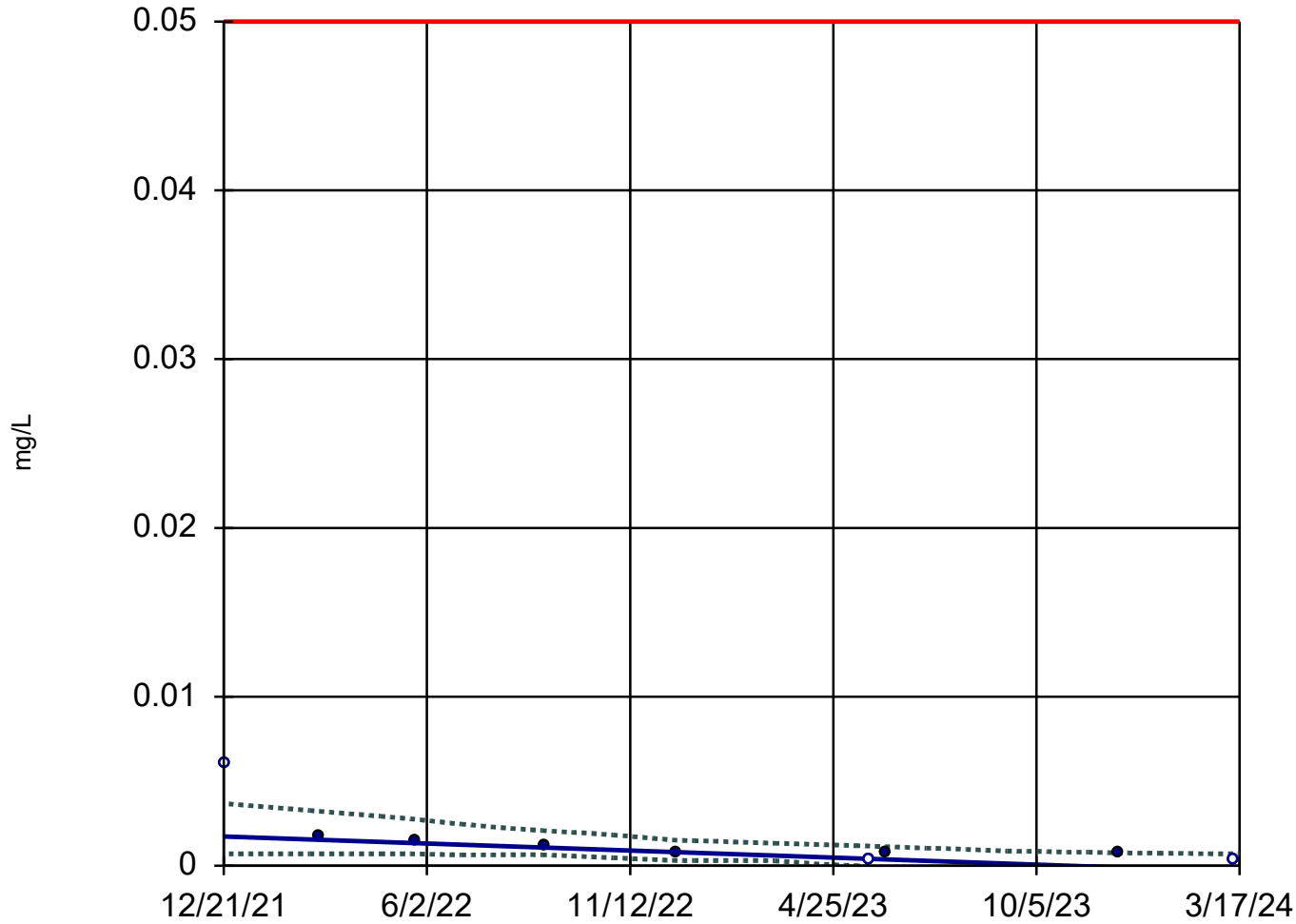


n = 10  
Slope = 0.1145  
units per year.  
Mann-Kendall  
statistic = 30  
critical = 27  
Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:39 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Selenium

EP-5

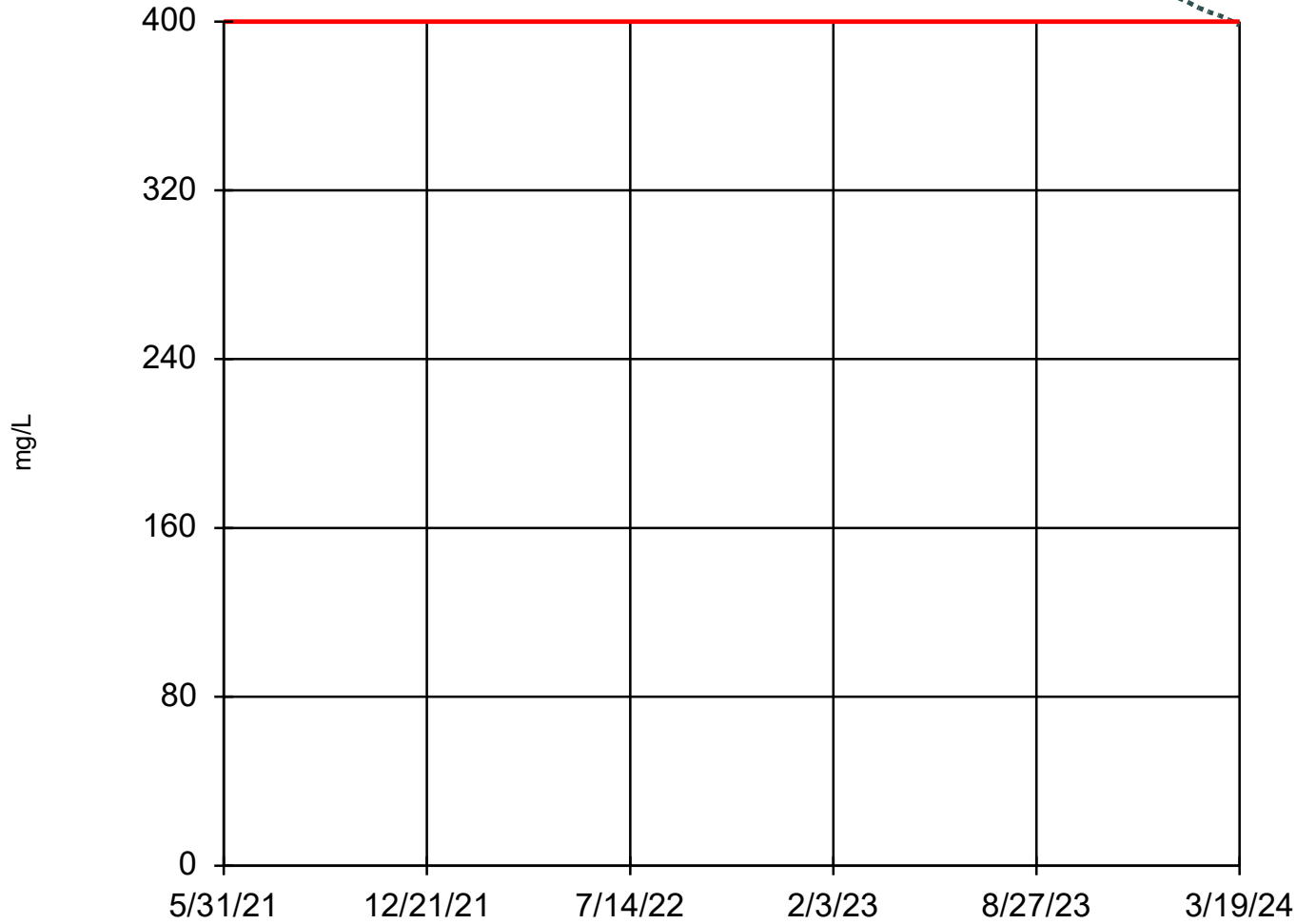


n = 9  
Slope = -0.0009389  
units per year.  
Mann-Kendall  
statistic = -26  
critical = -23  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.05).

Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:39 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4

# Sulfate

## EP-4



n = 12

Slope = -56.64  
units per year.

Mann-Kendall  
statistic = -40  
critical = -35

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band intersects  
(400) on 03/19/24.

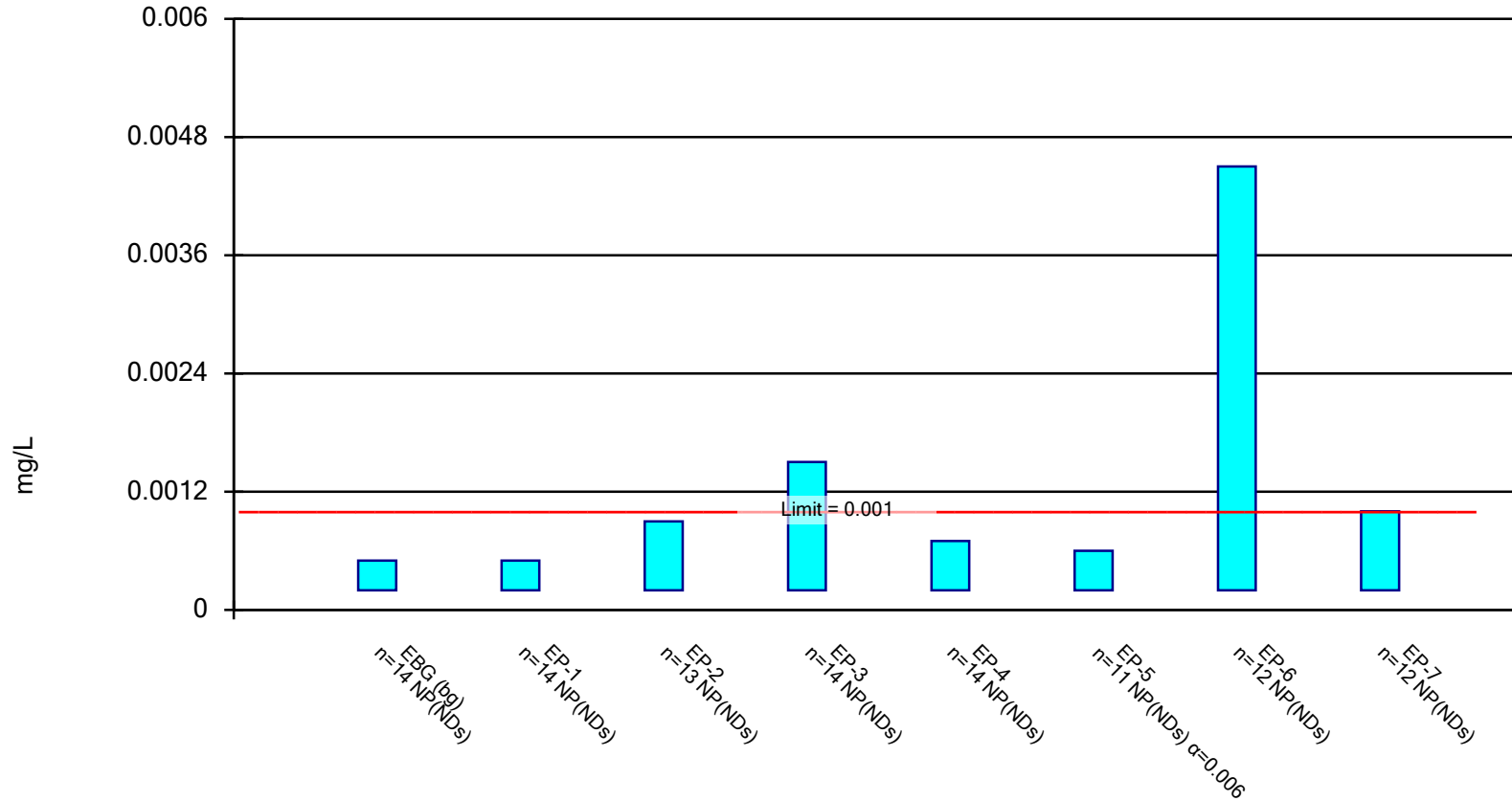
Sen's Slope and 95% Confidence Band Analysis Run 4/22/2024 10:40 AM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2023 Q4





## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

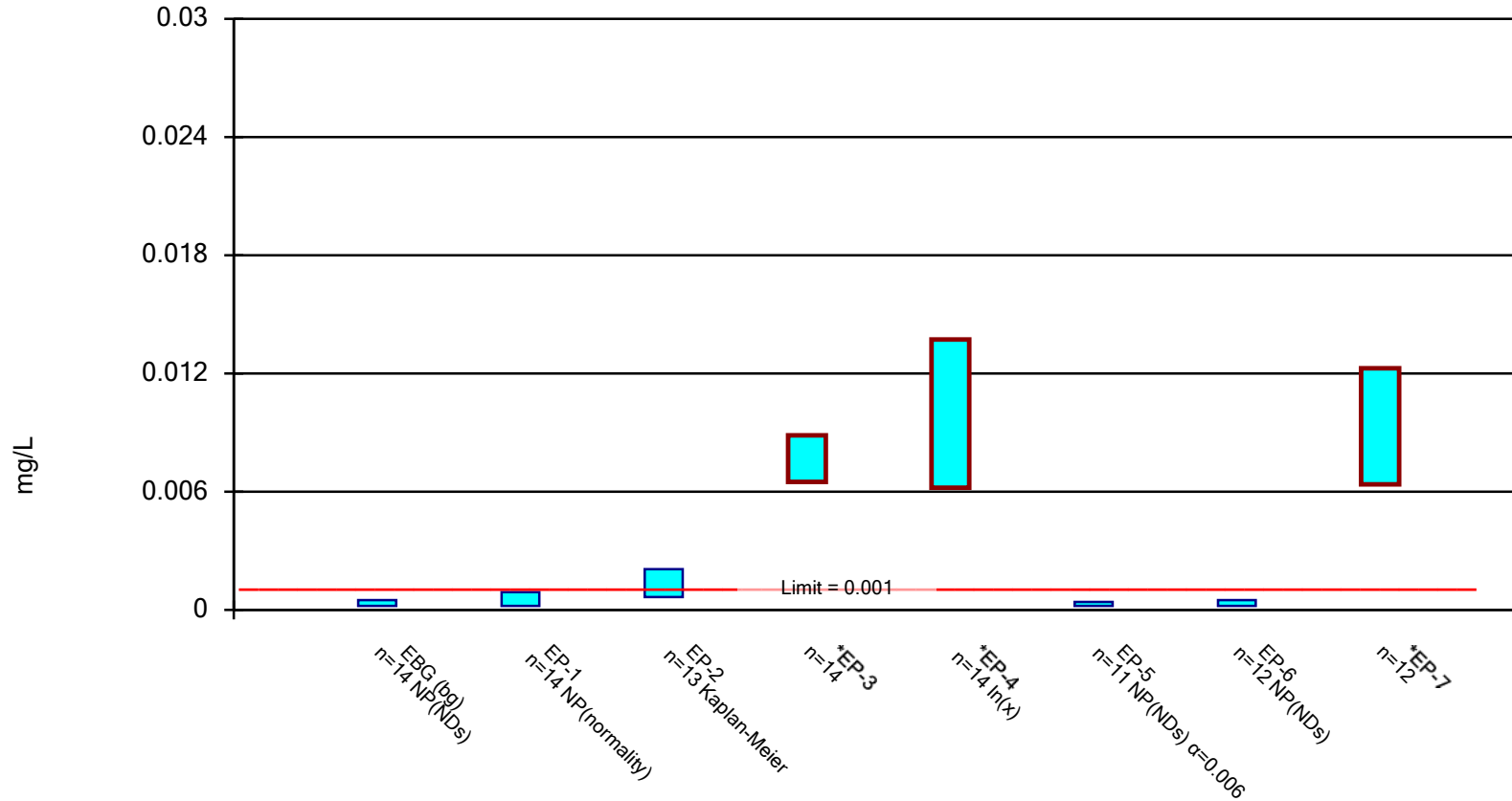


Constituent: Antimony Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

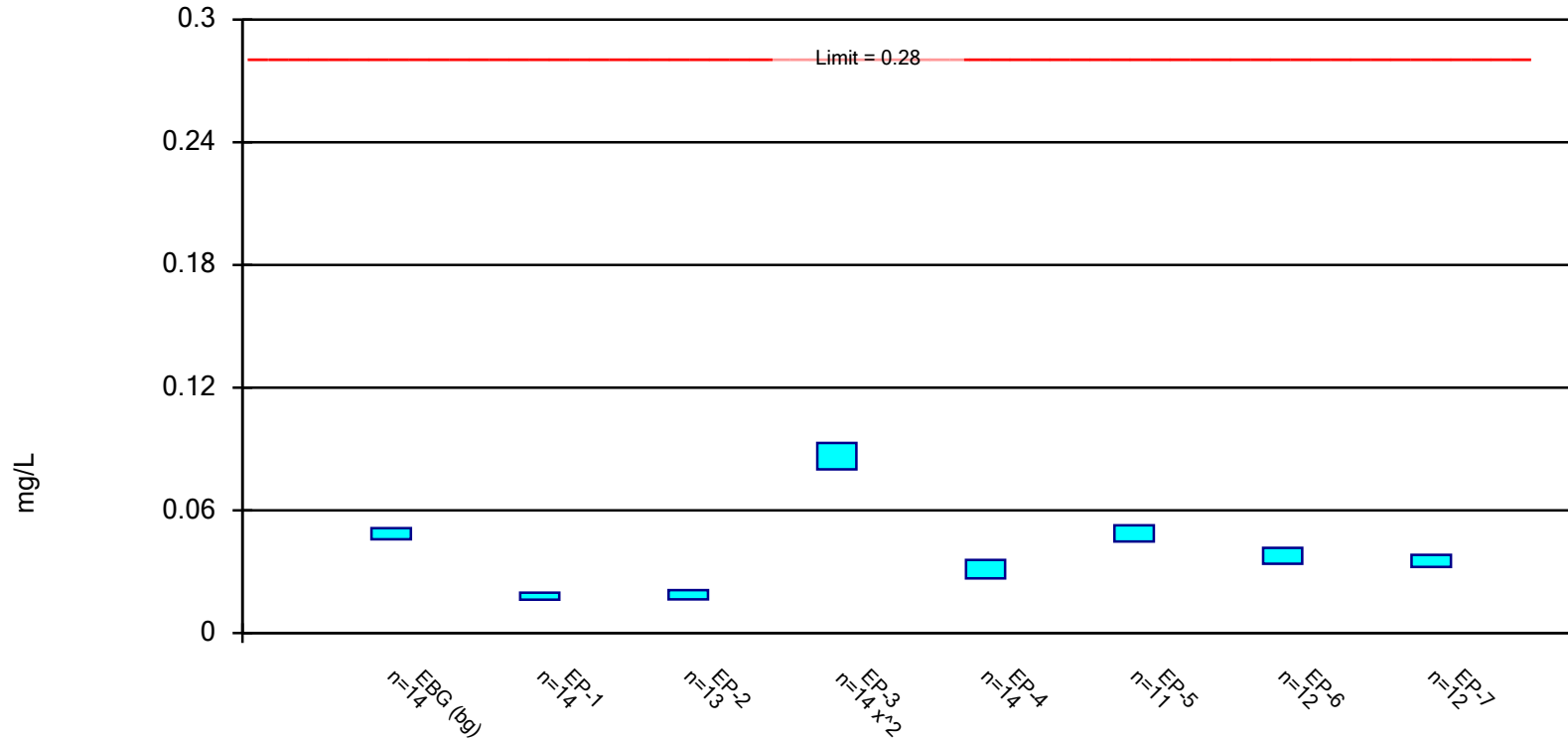


Constituent: Arsenic Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

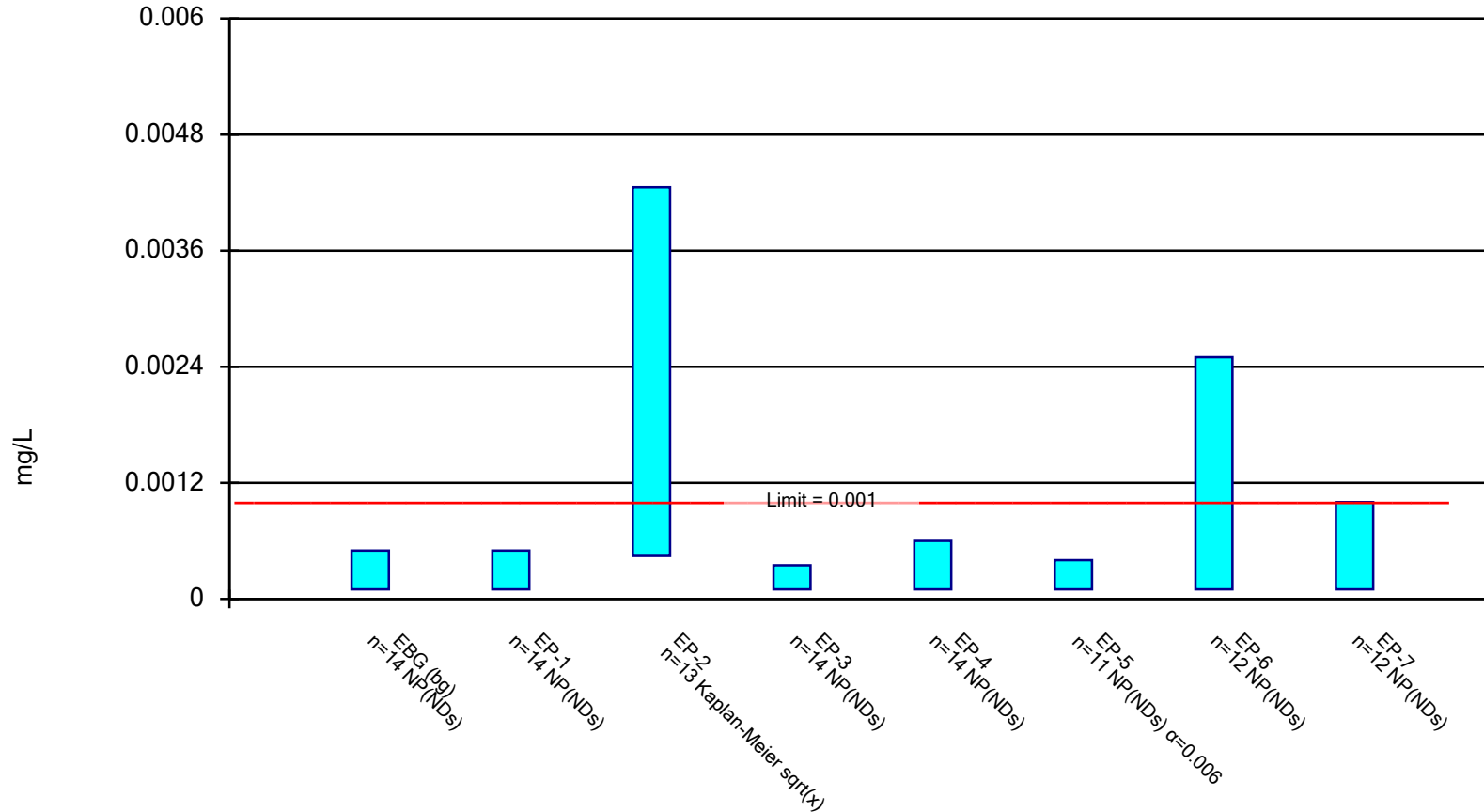


Constituent: Barium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

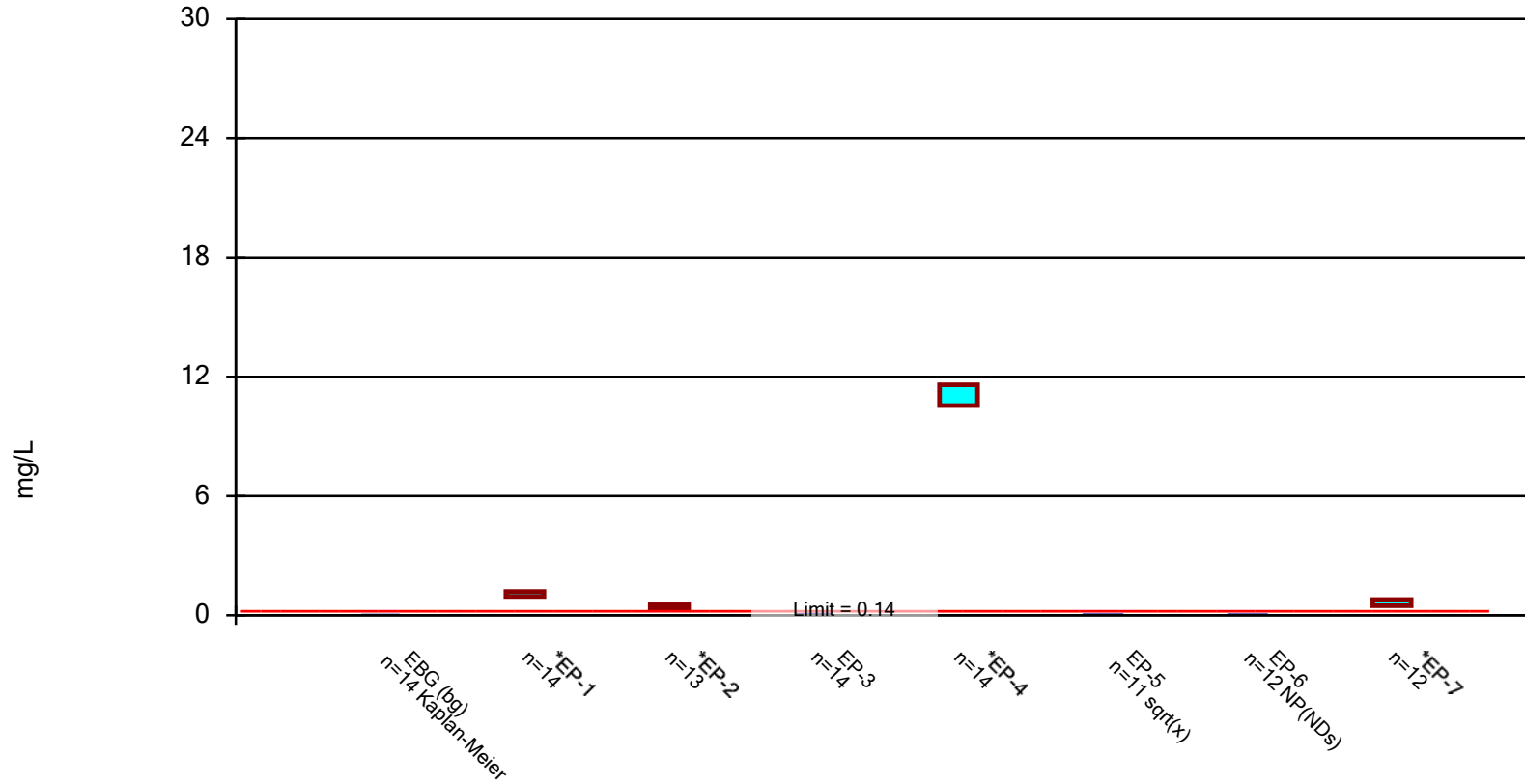


Constituent: Beryllium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

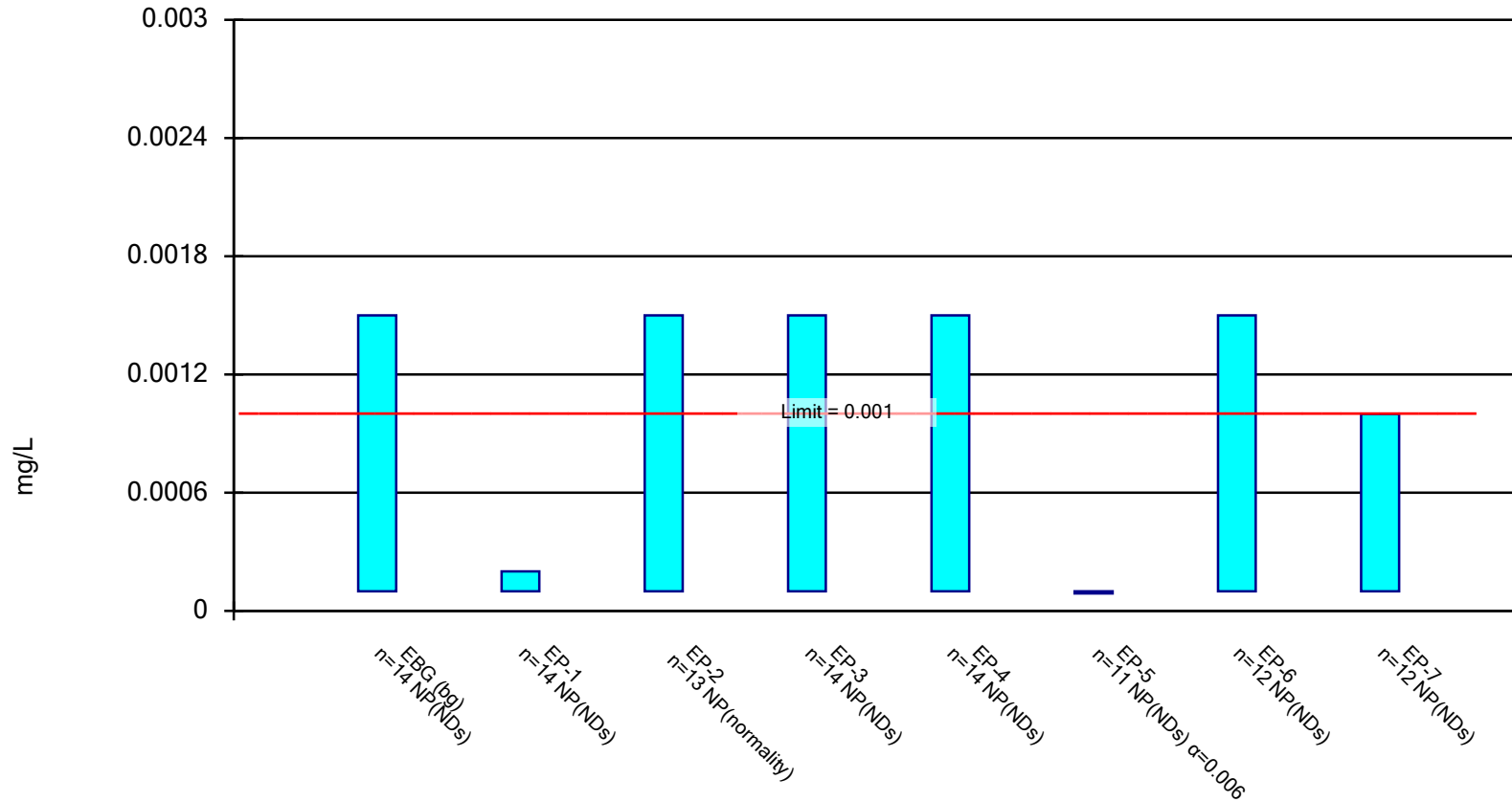


Constituent: Boron Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

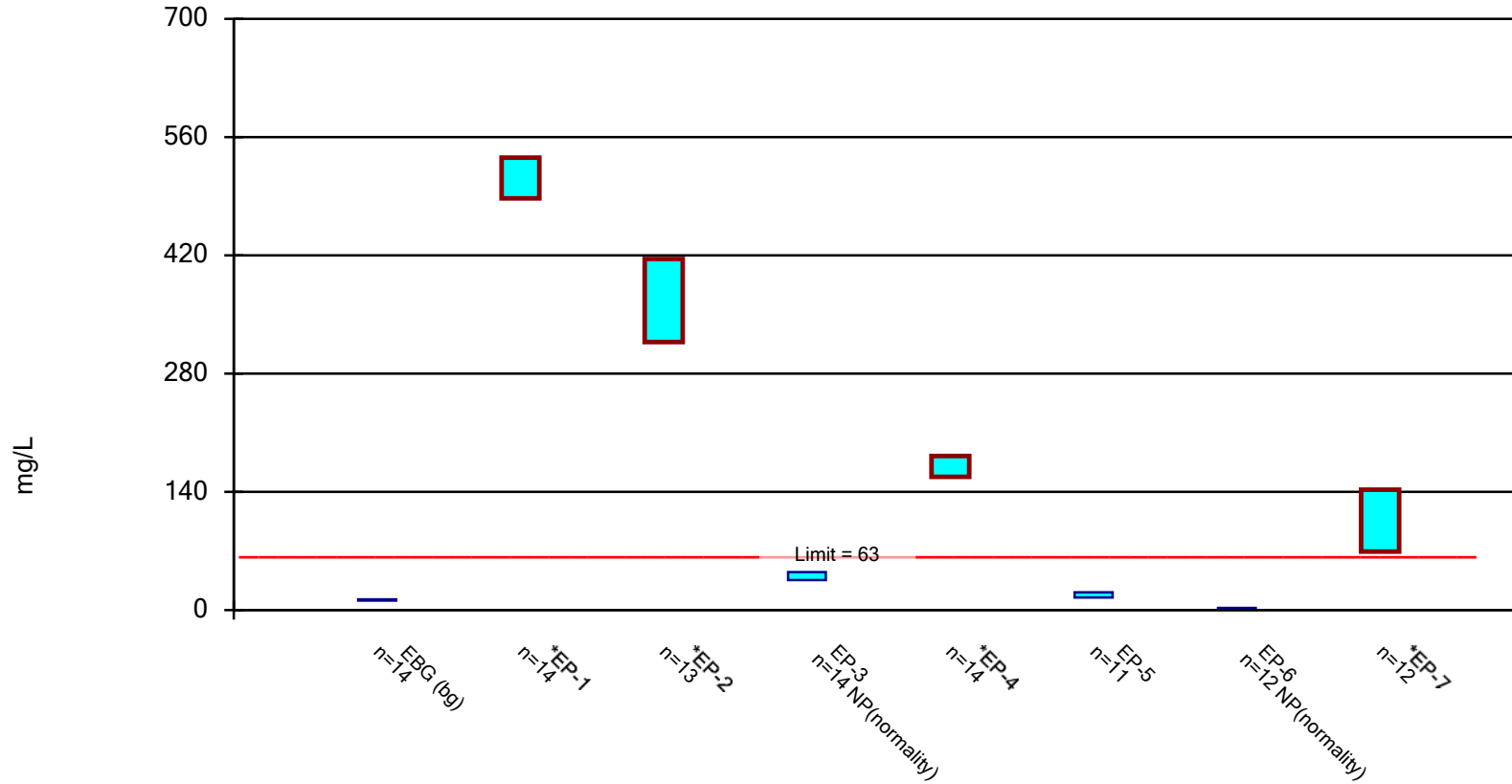


Constituent: Cadmium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



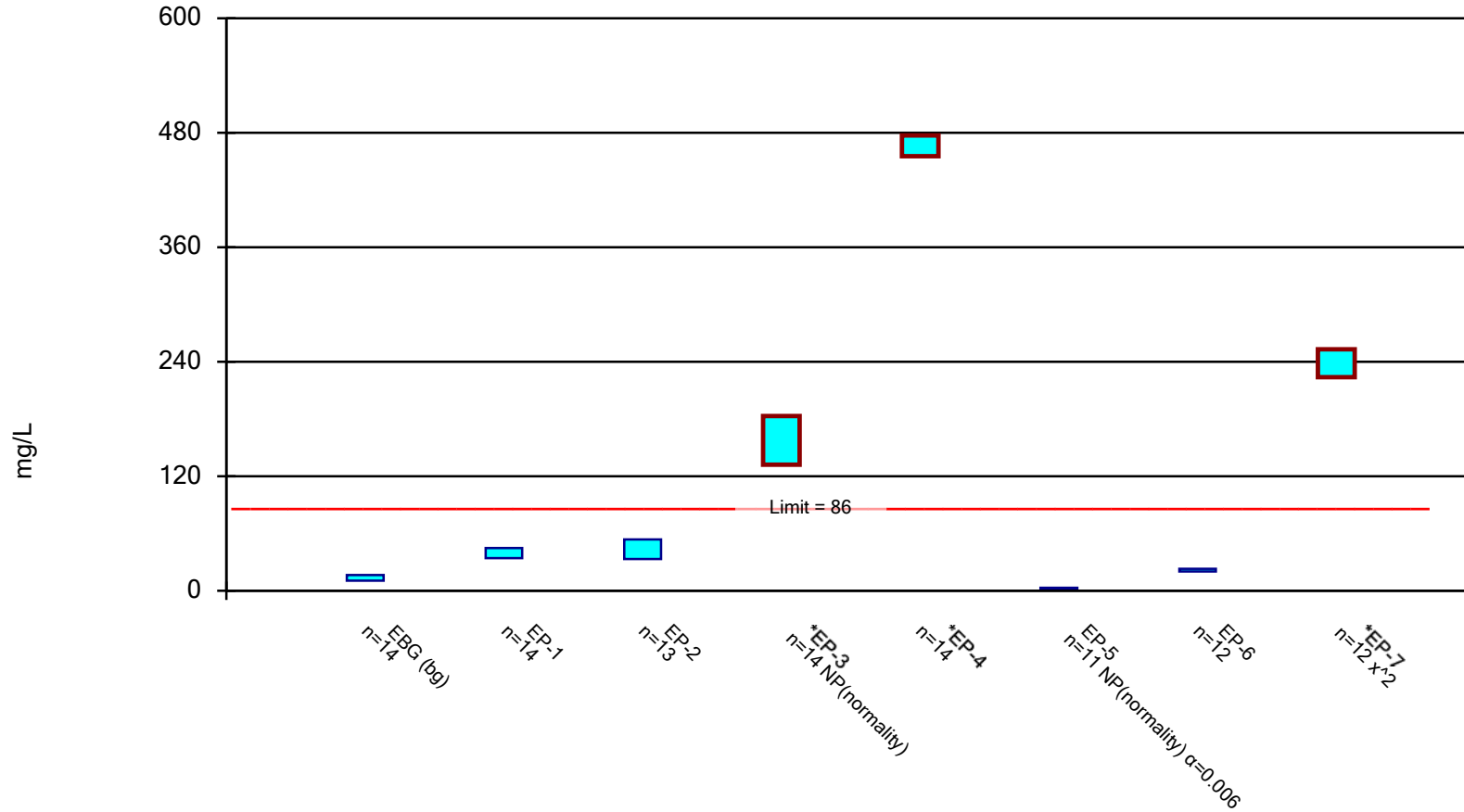
Constituent: Calcium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

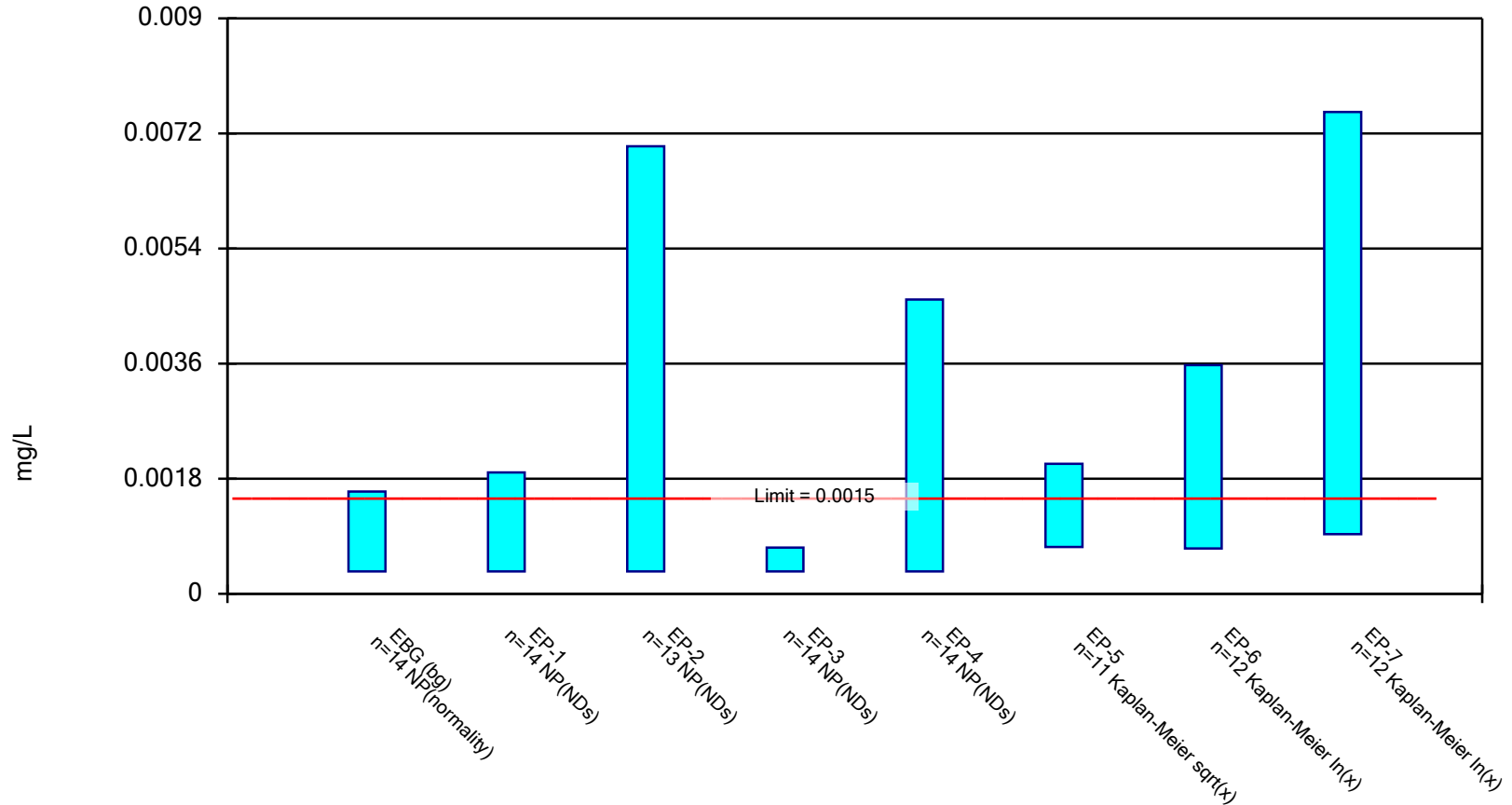


Constituent: Chloride Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

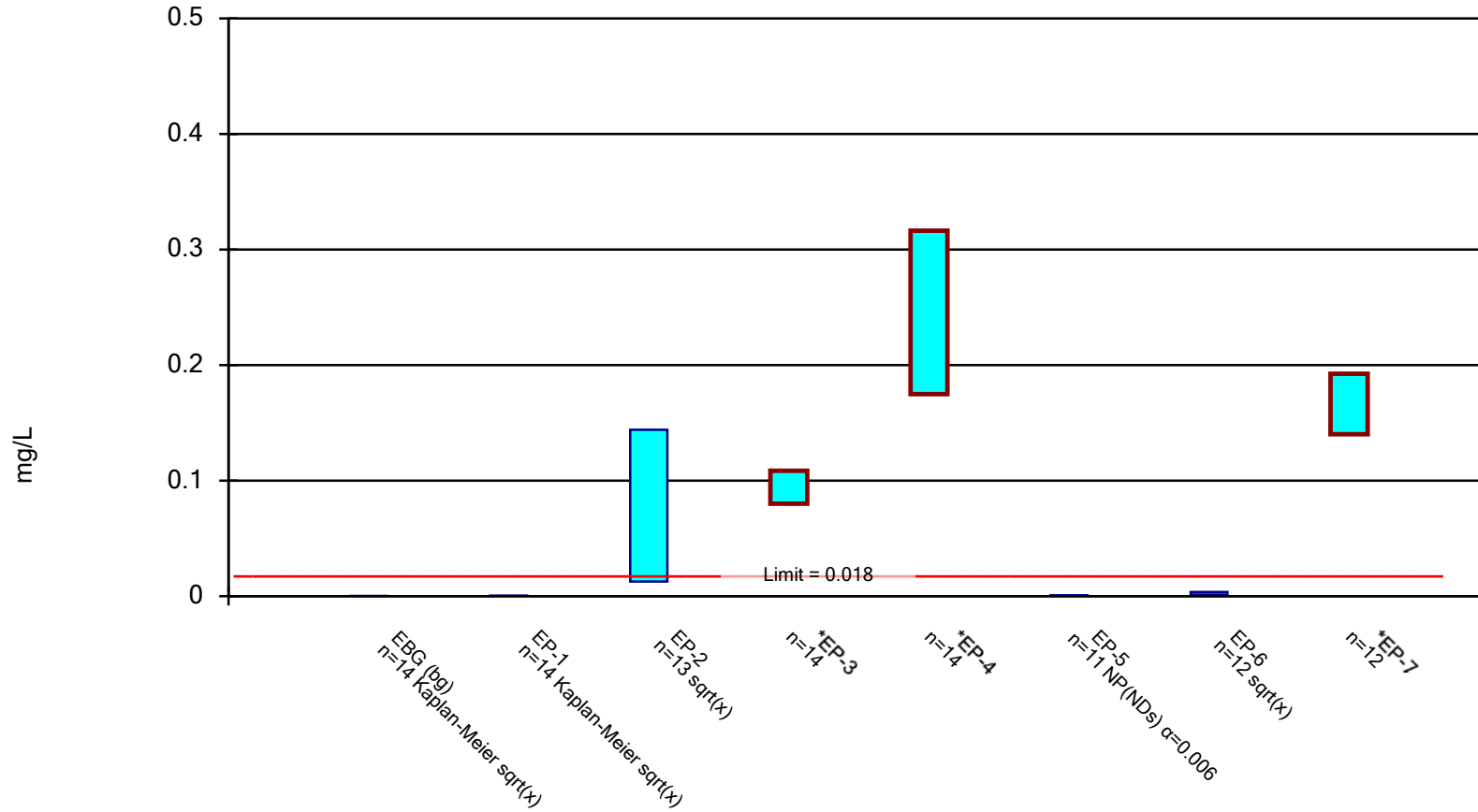


Constituent: Chromium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

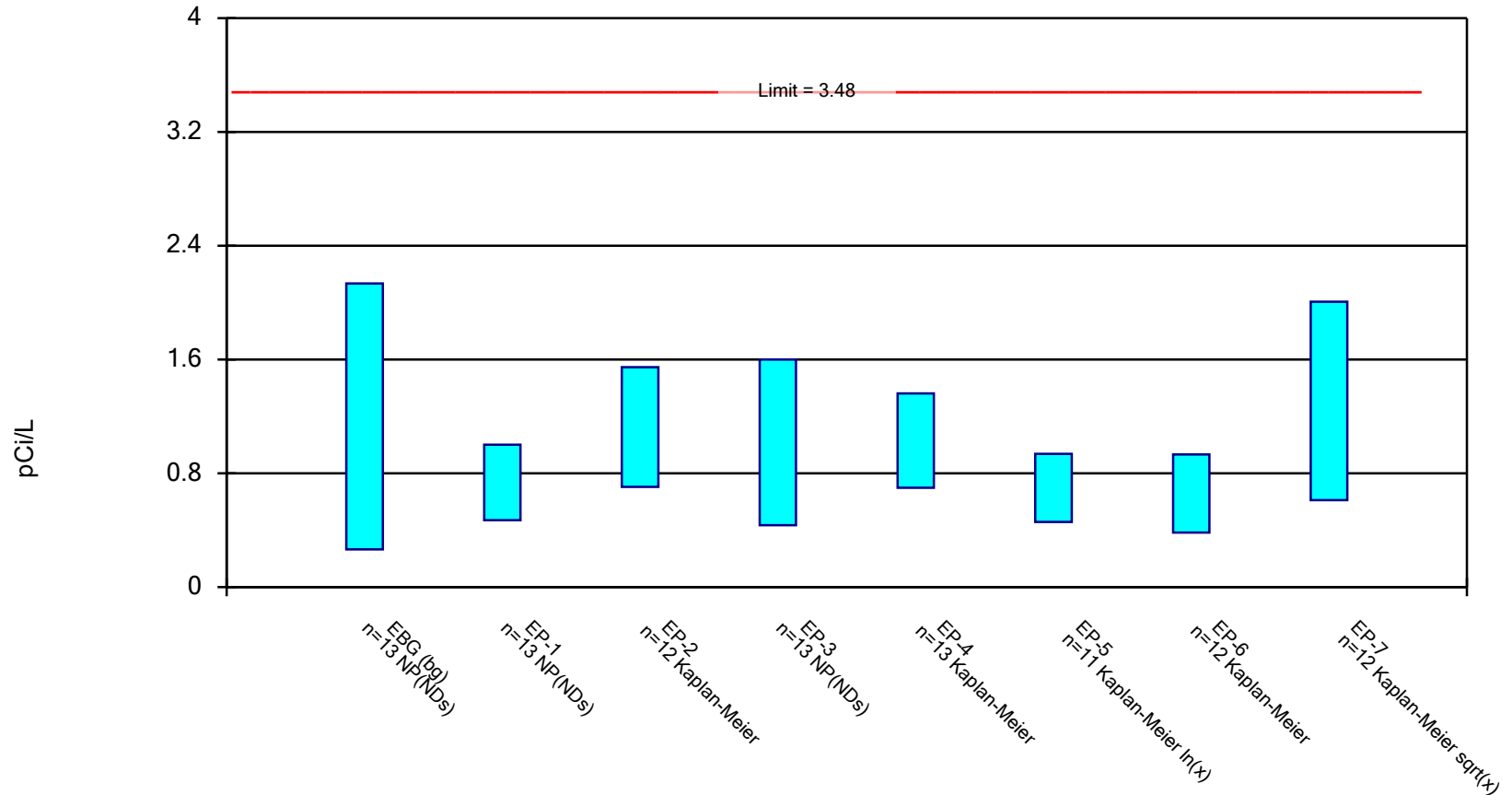


Constituent: Cobalt Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

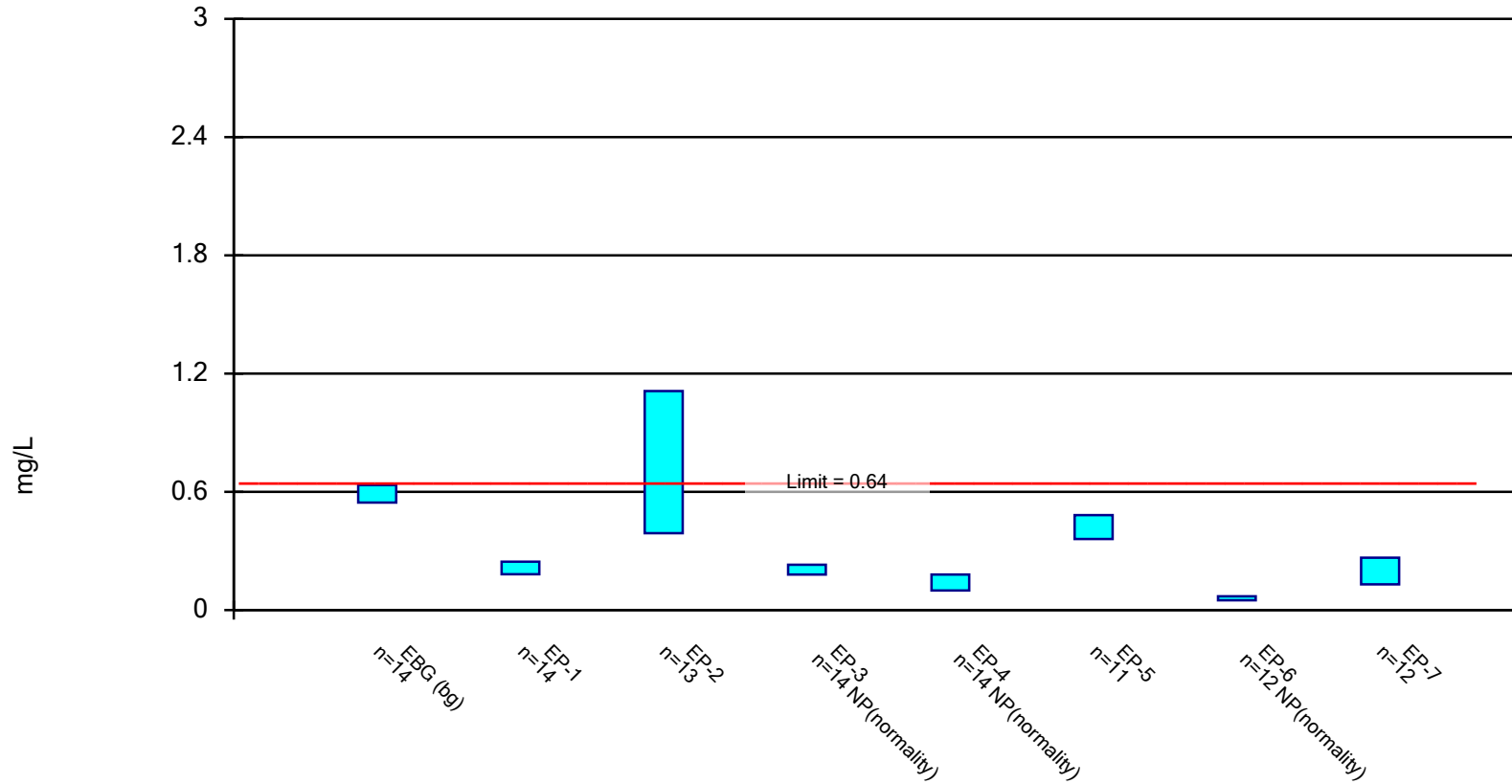
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium    Analysis Run 10/17/2024 5:01 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

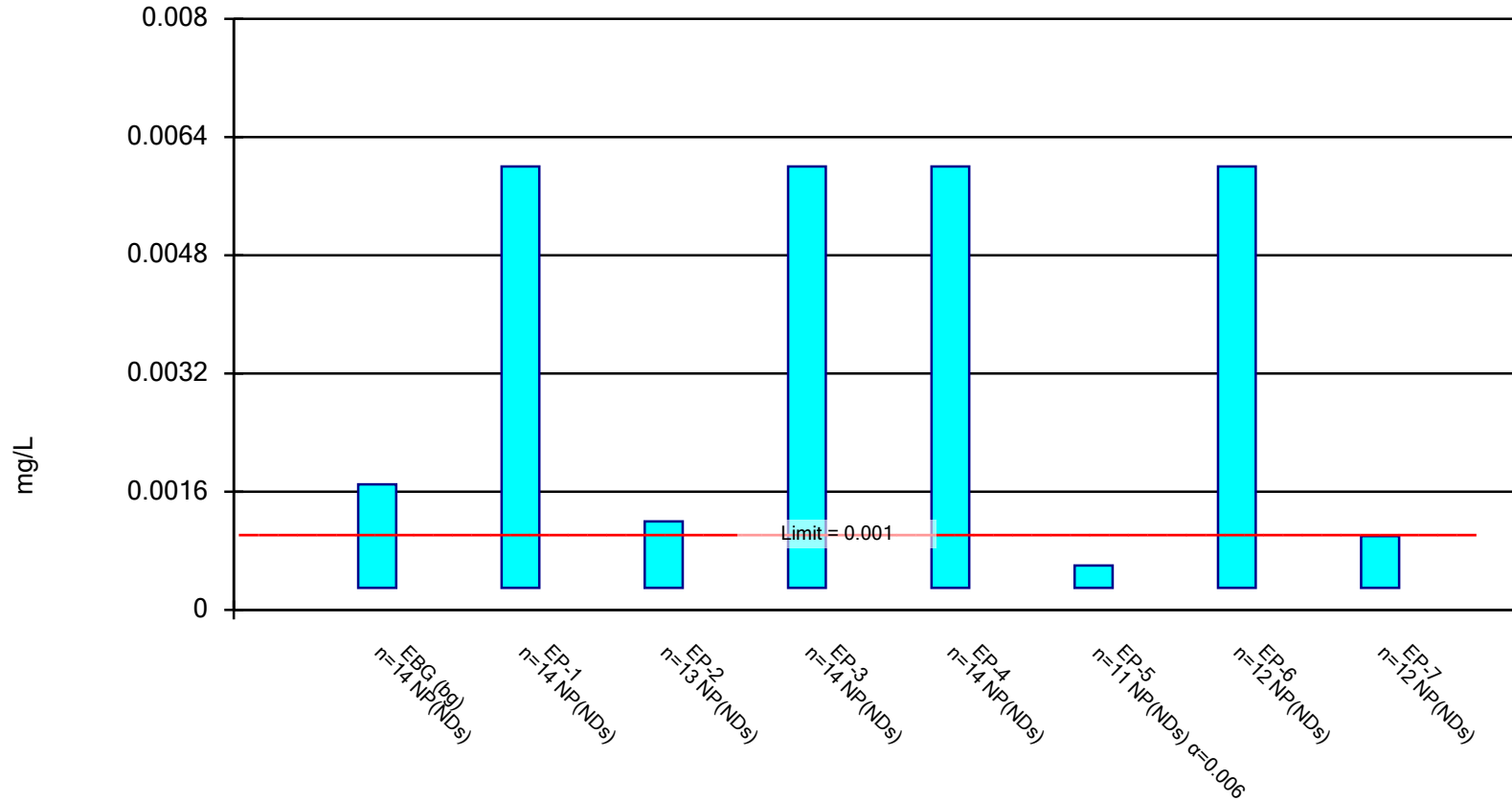


Constituent: Fluoride Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

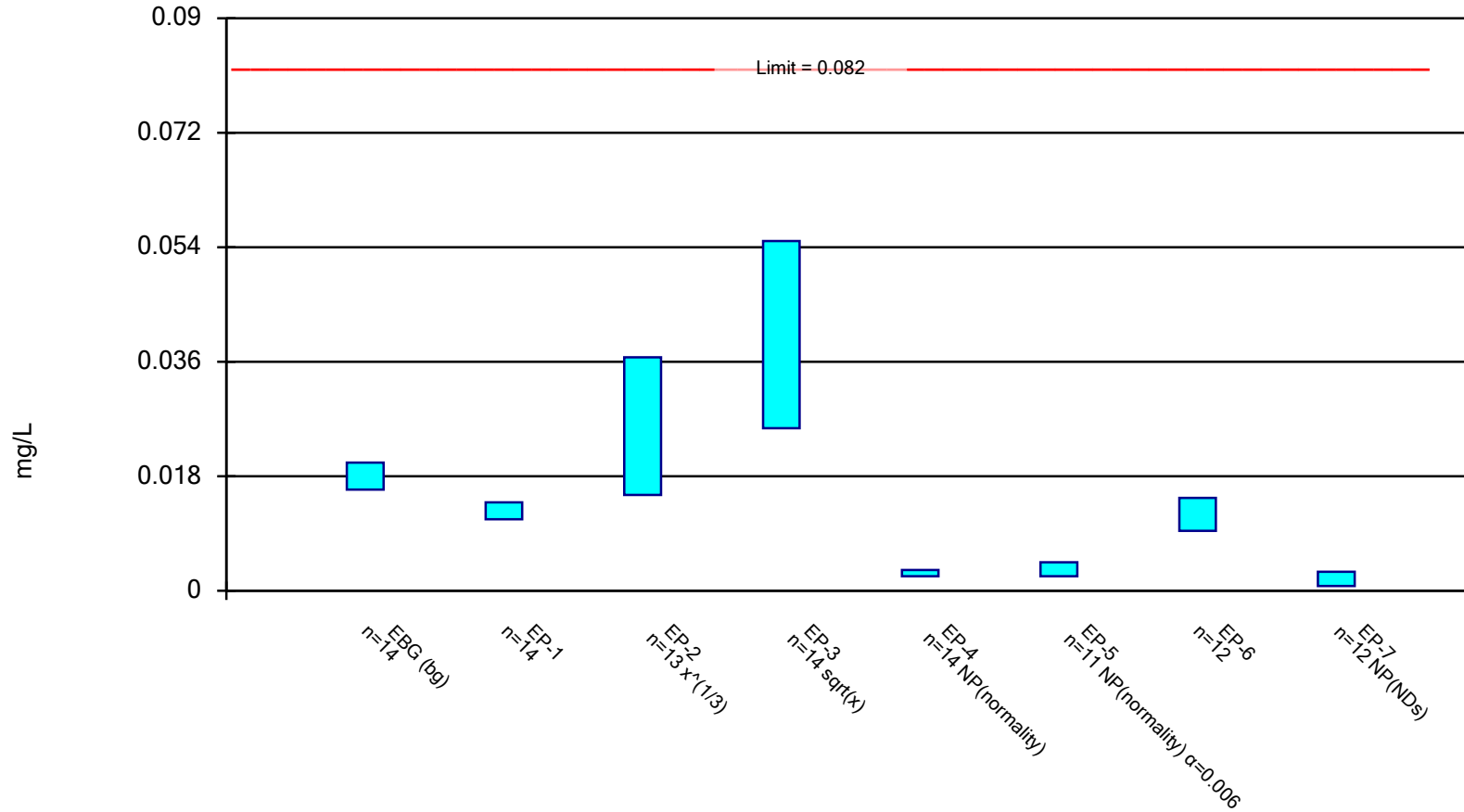


Constituent: Lead Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

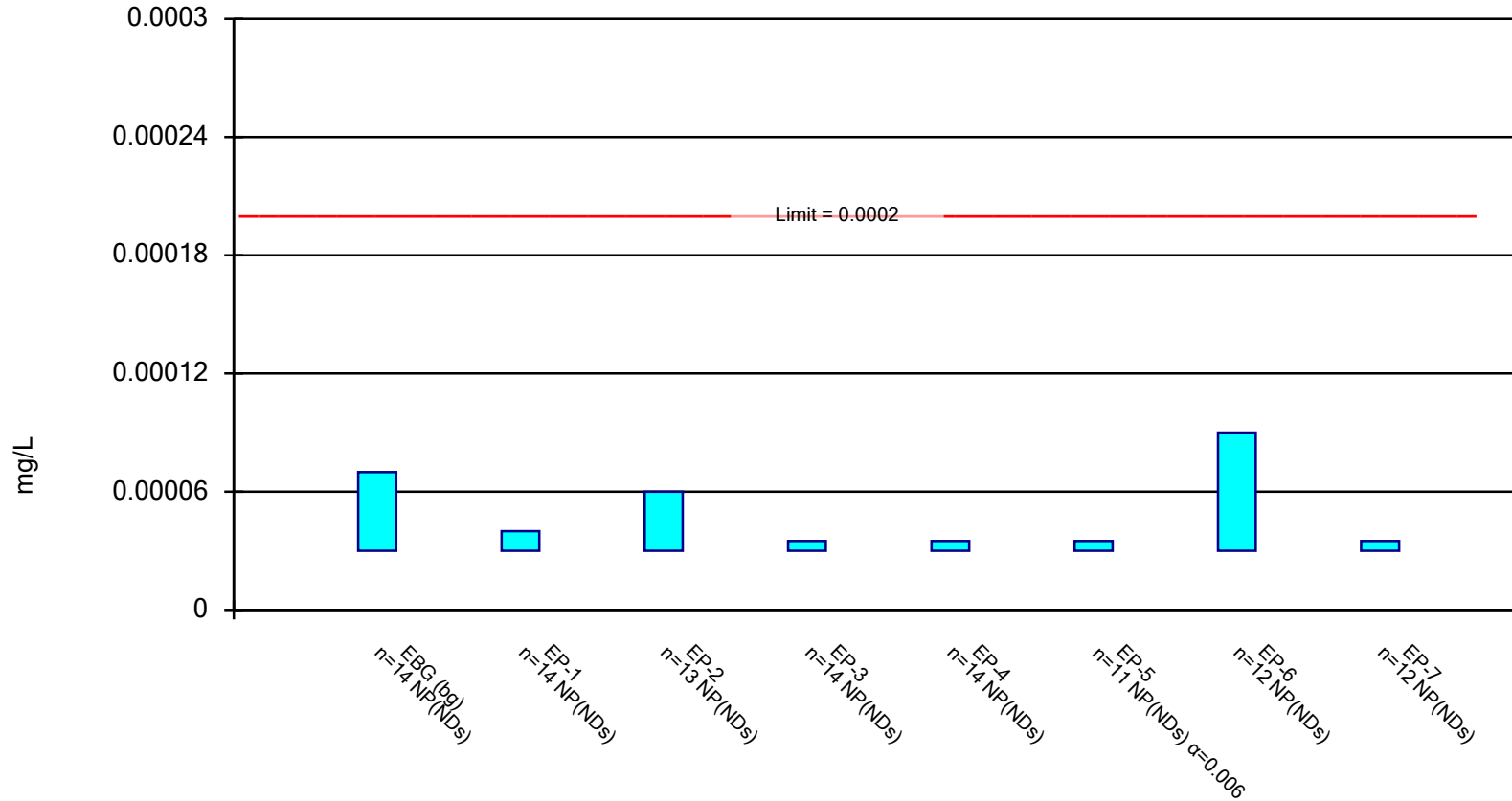


Constituent: Lithium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



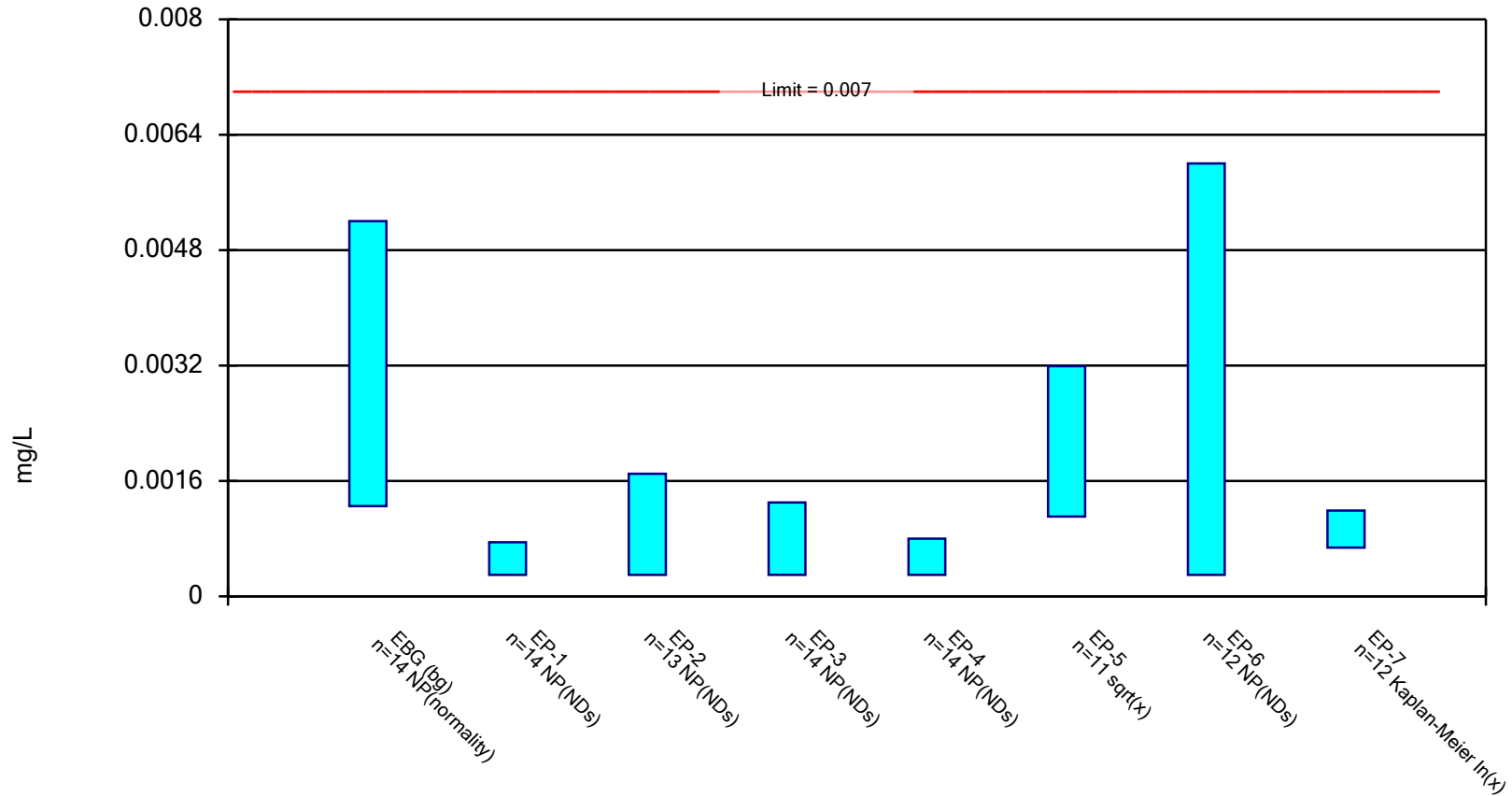
Constituent: Mercury Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

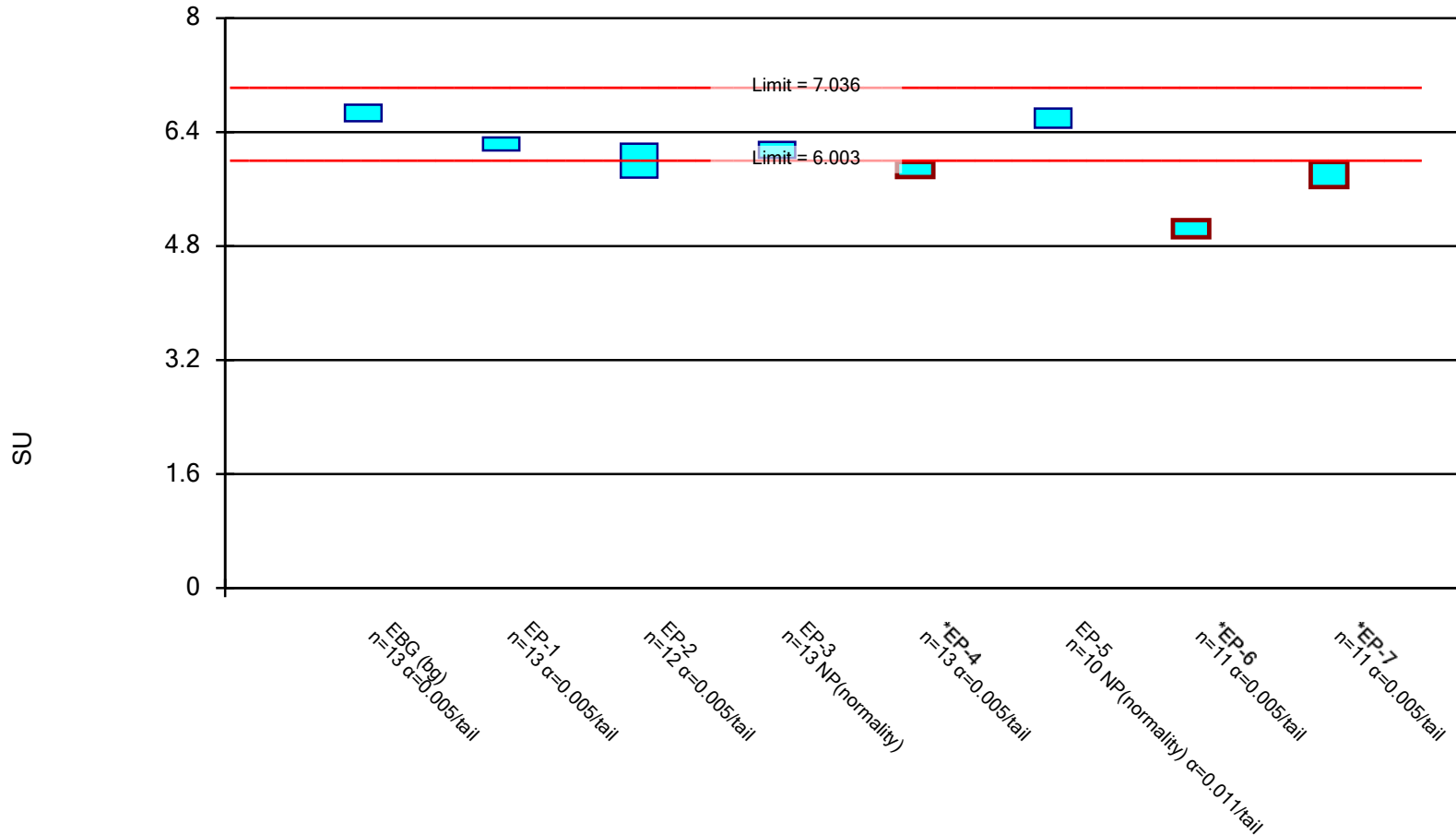


Constituent: Molybdenum Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

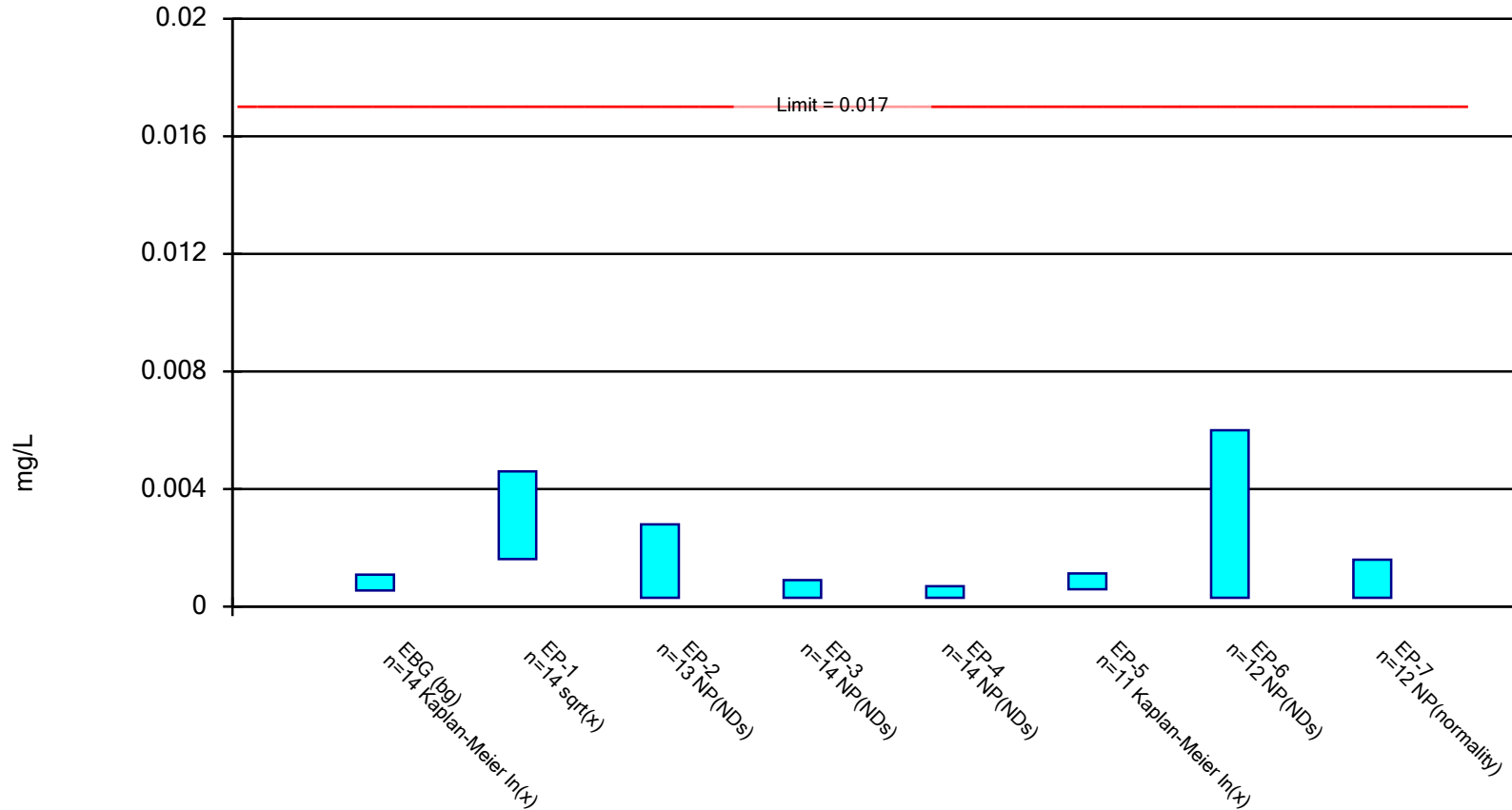


Constituent: pH Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

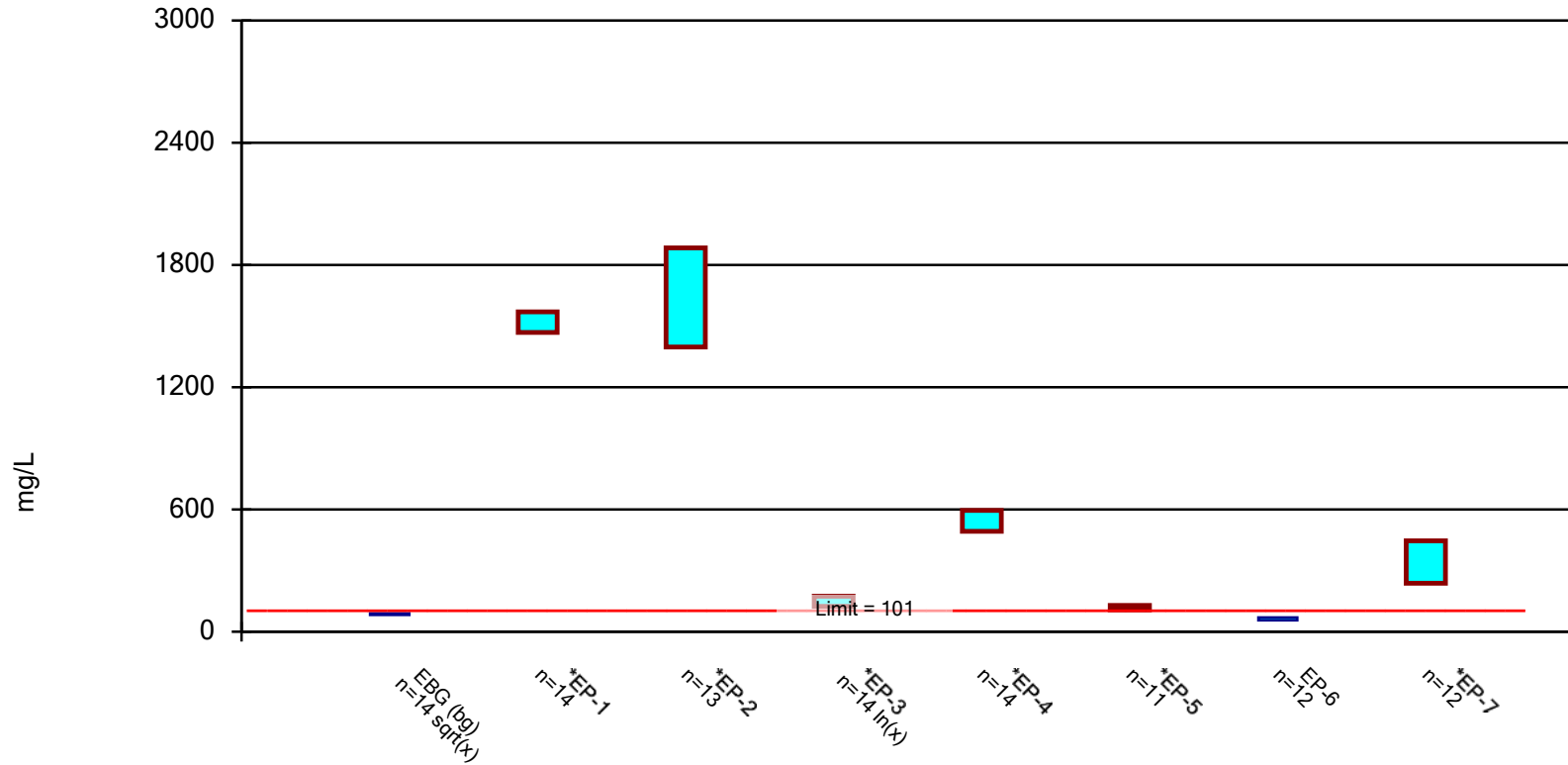


Constituent: Selenium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

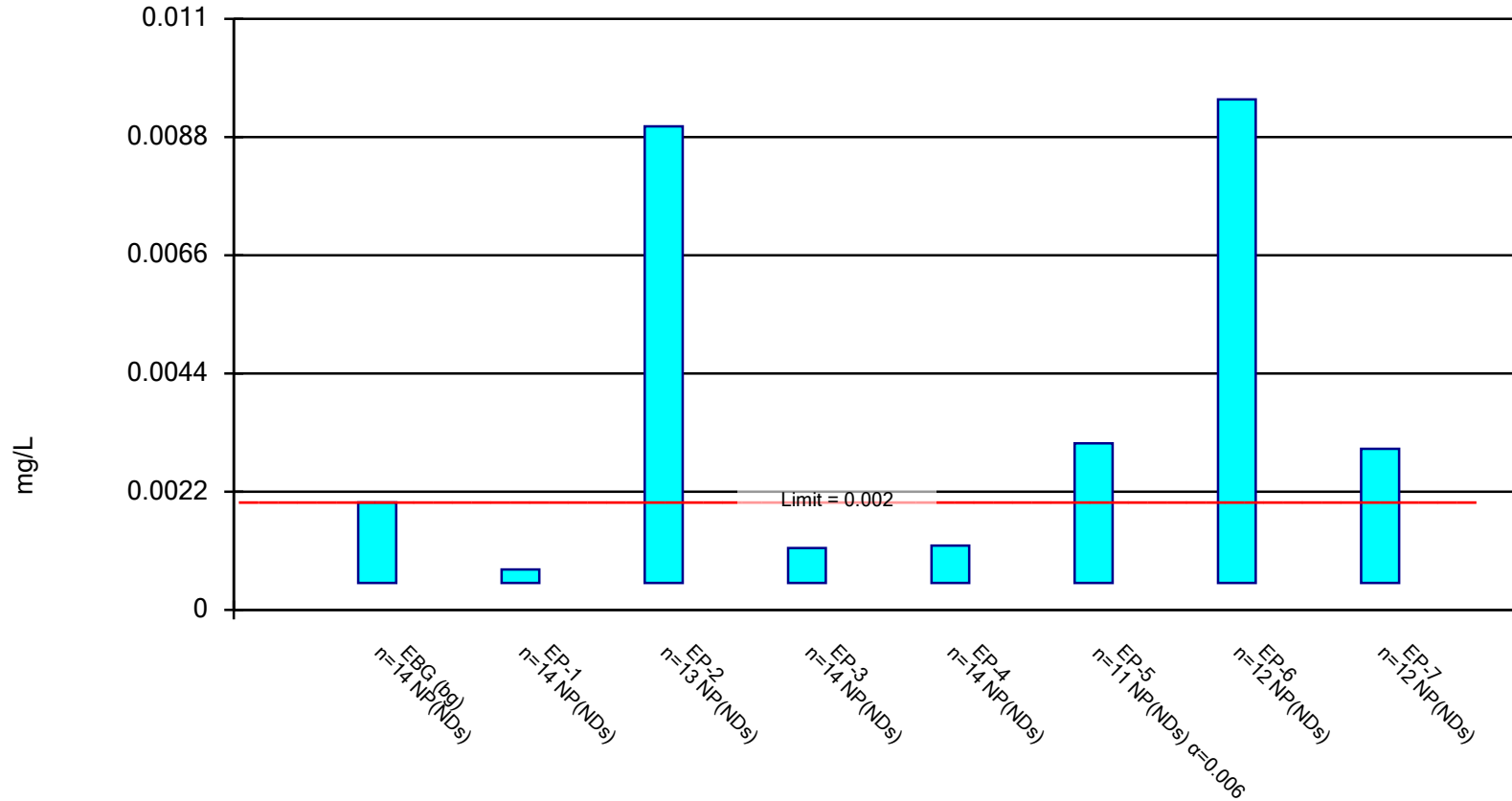


Constituent: Sulfate Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

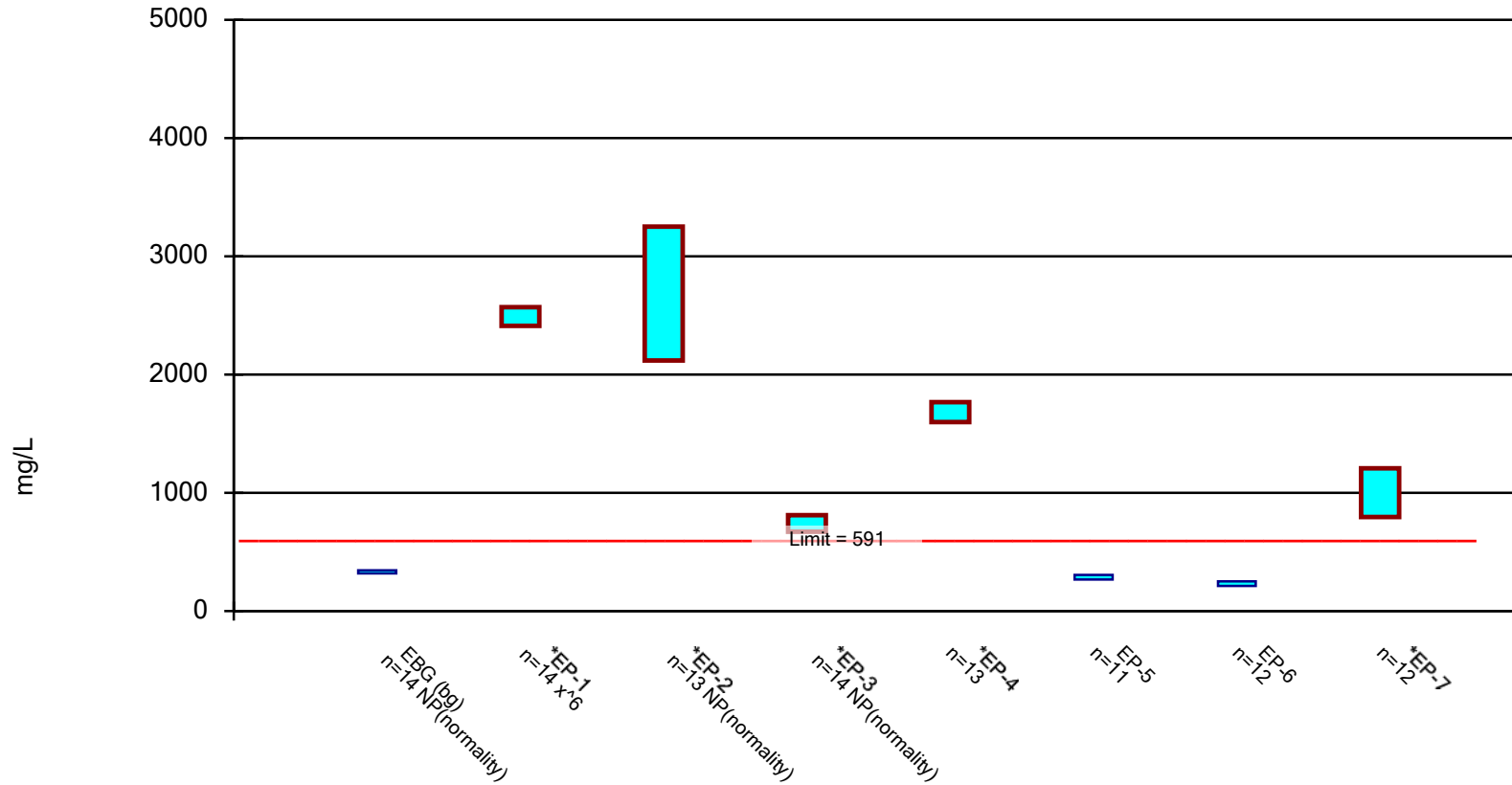


Constituent: Thallium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



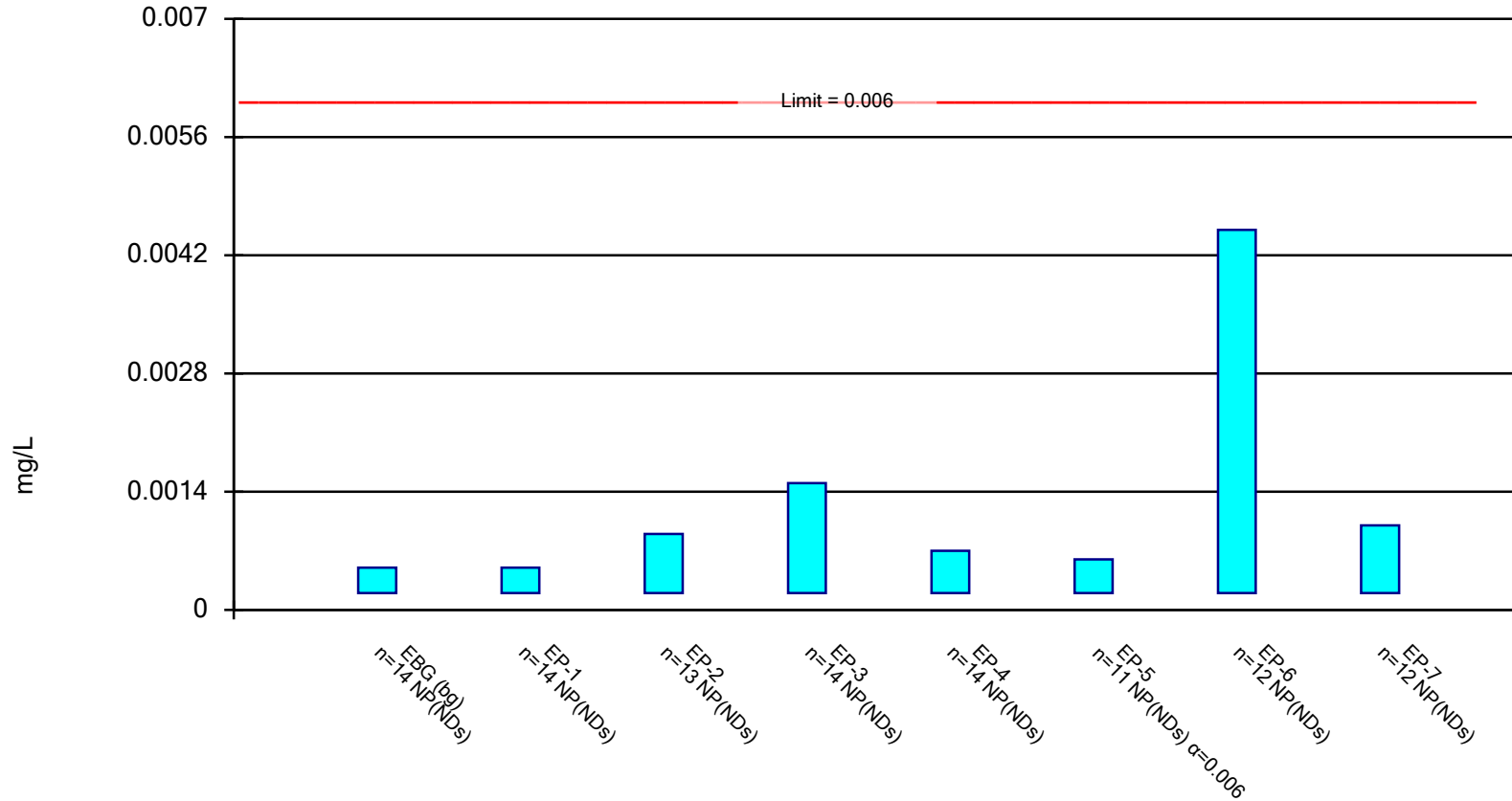
Constituent: Total Dissolved Solids Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



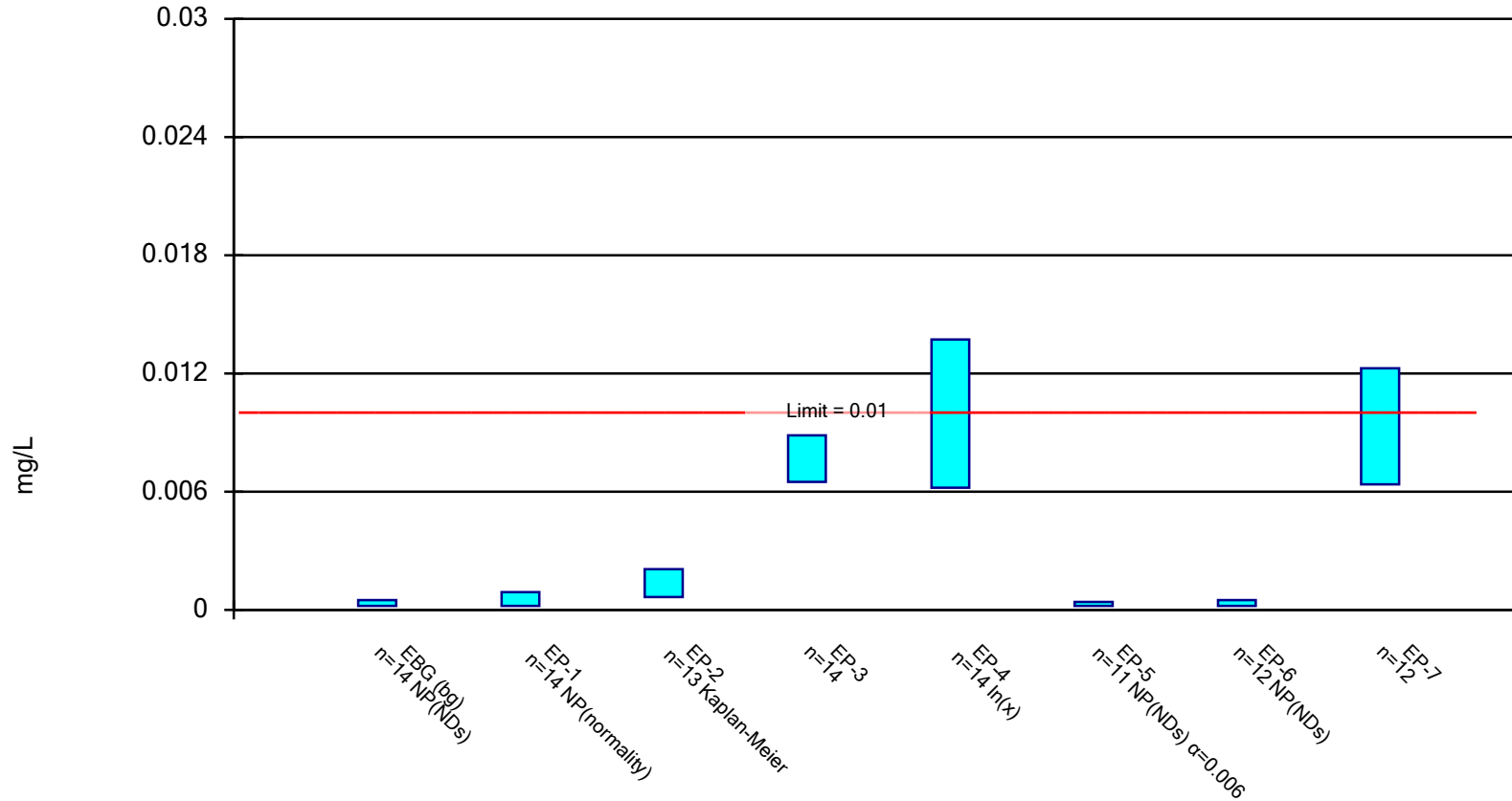
Constituent: Antimony Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

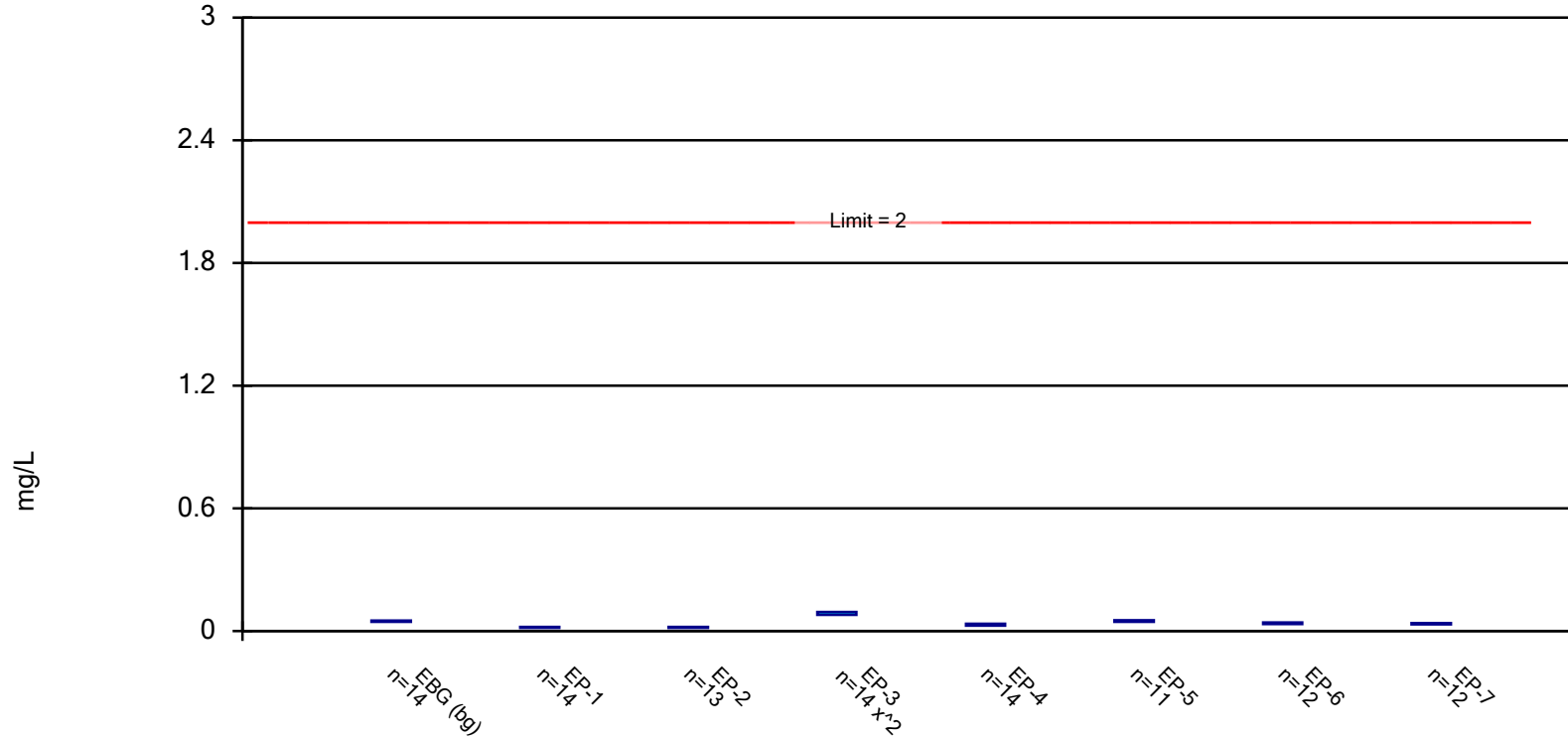


Constituent: Arsenic Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

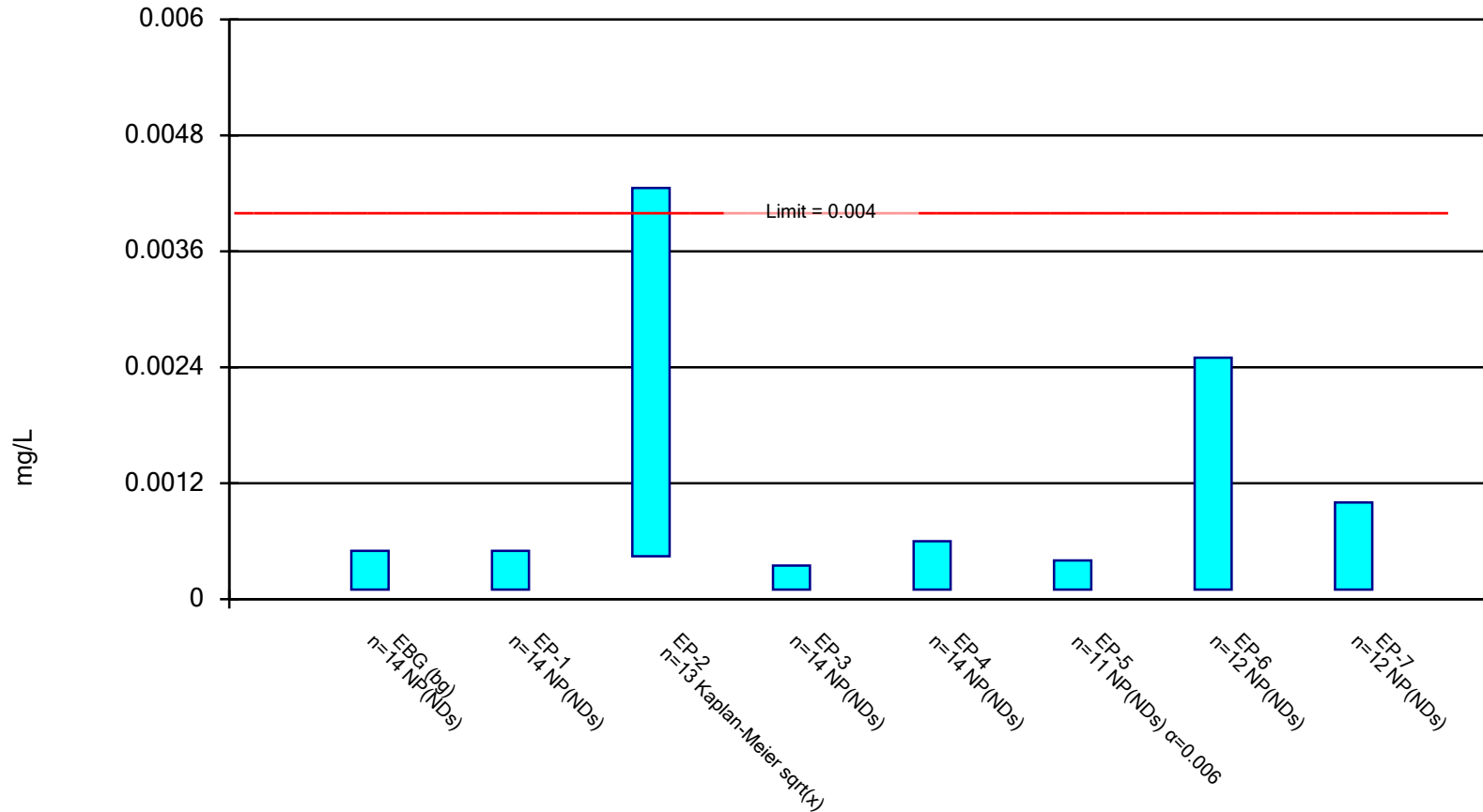


Constituent: Barium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

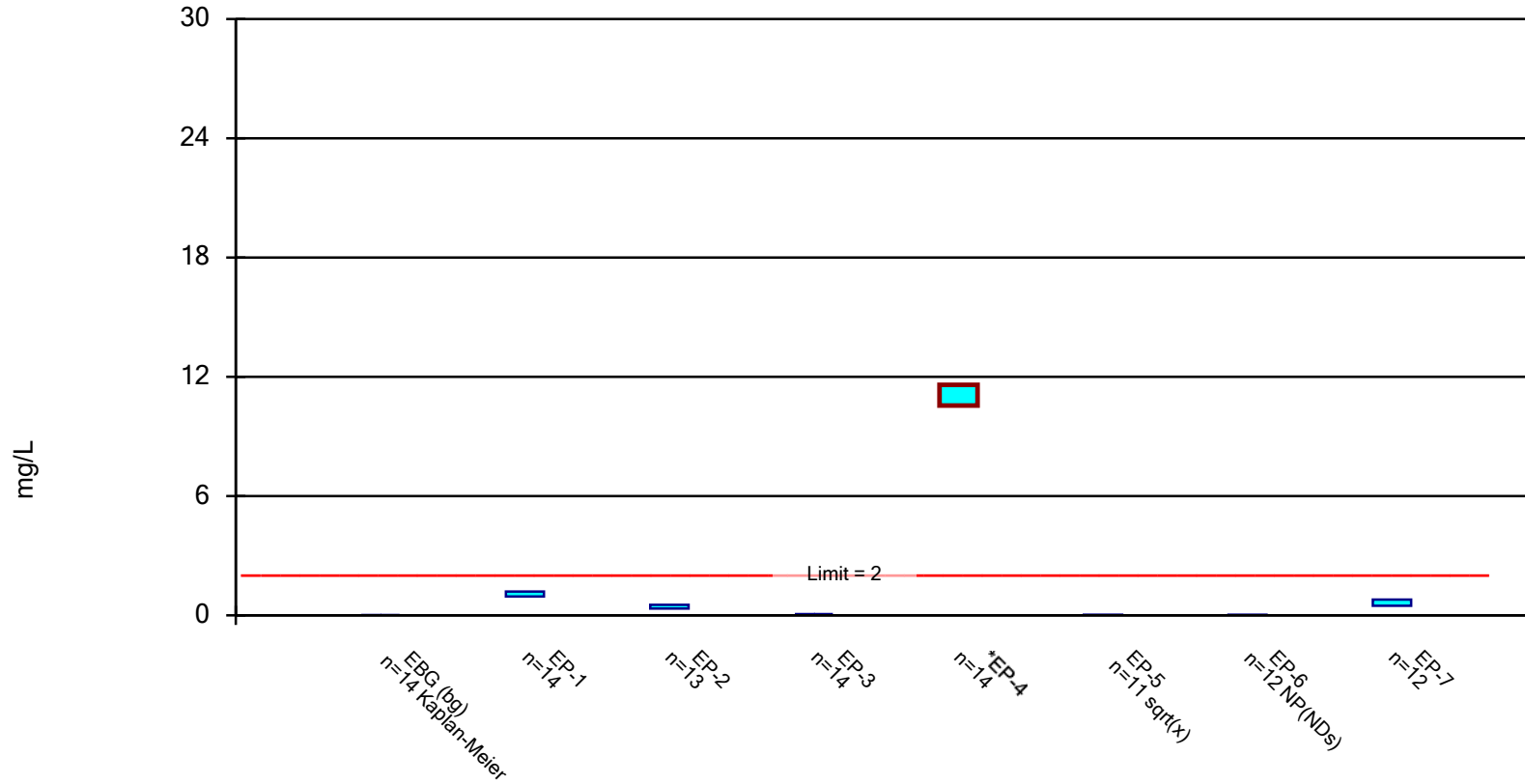


Constituent: Beryllium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

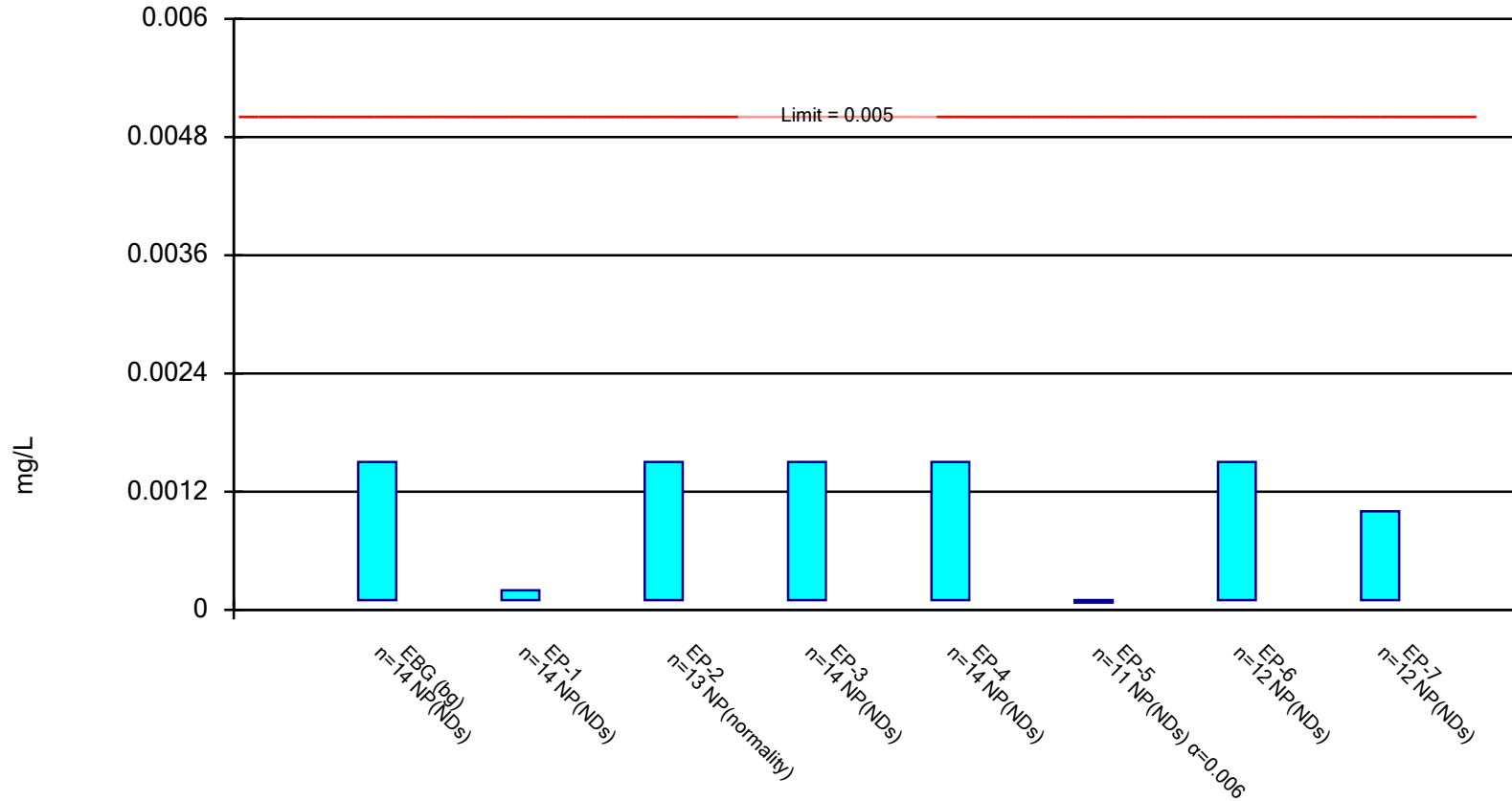


Constituent: Boron Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

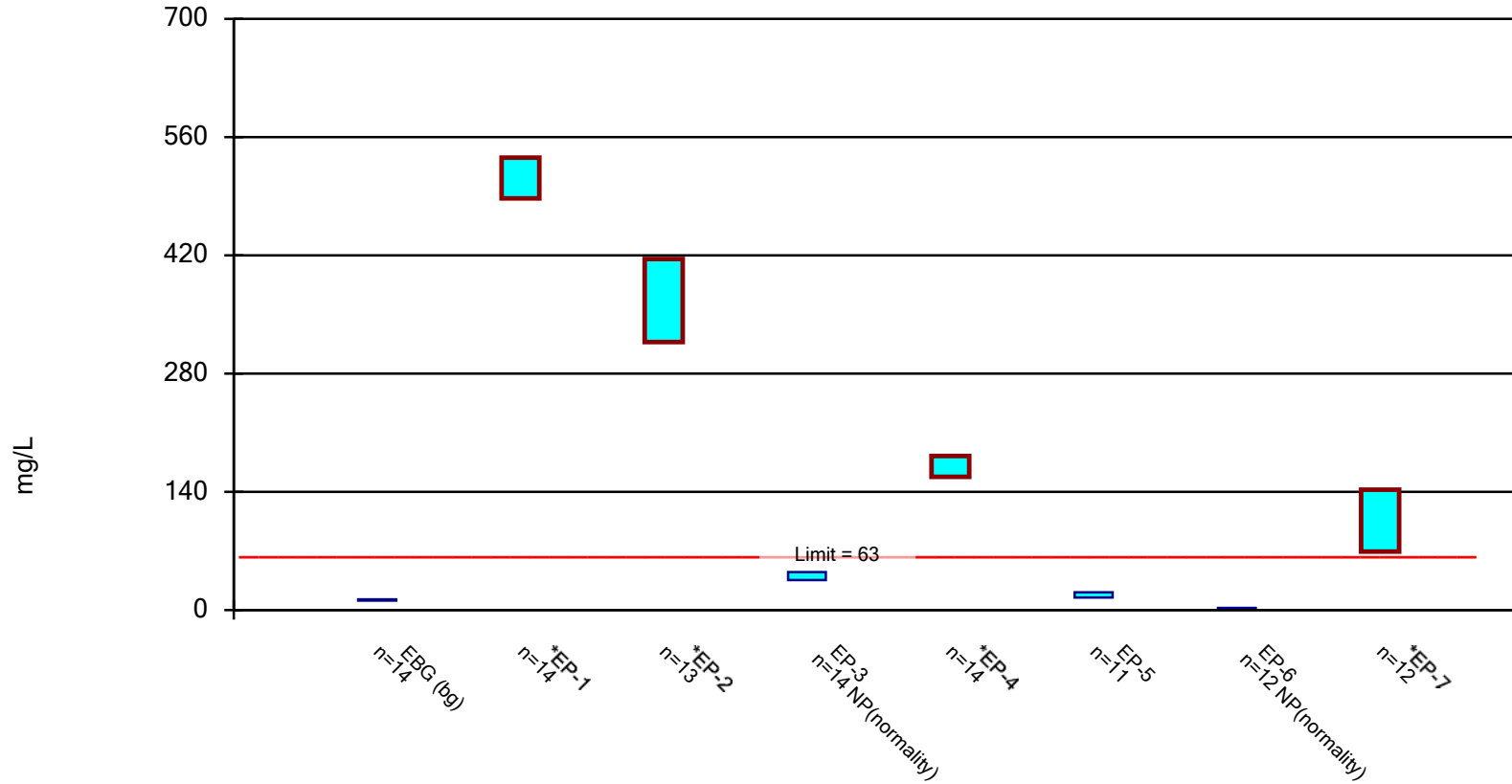


Constituent: Cadmium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

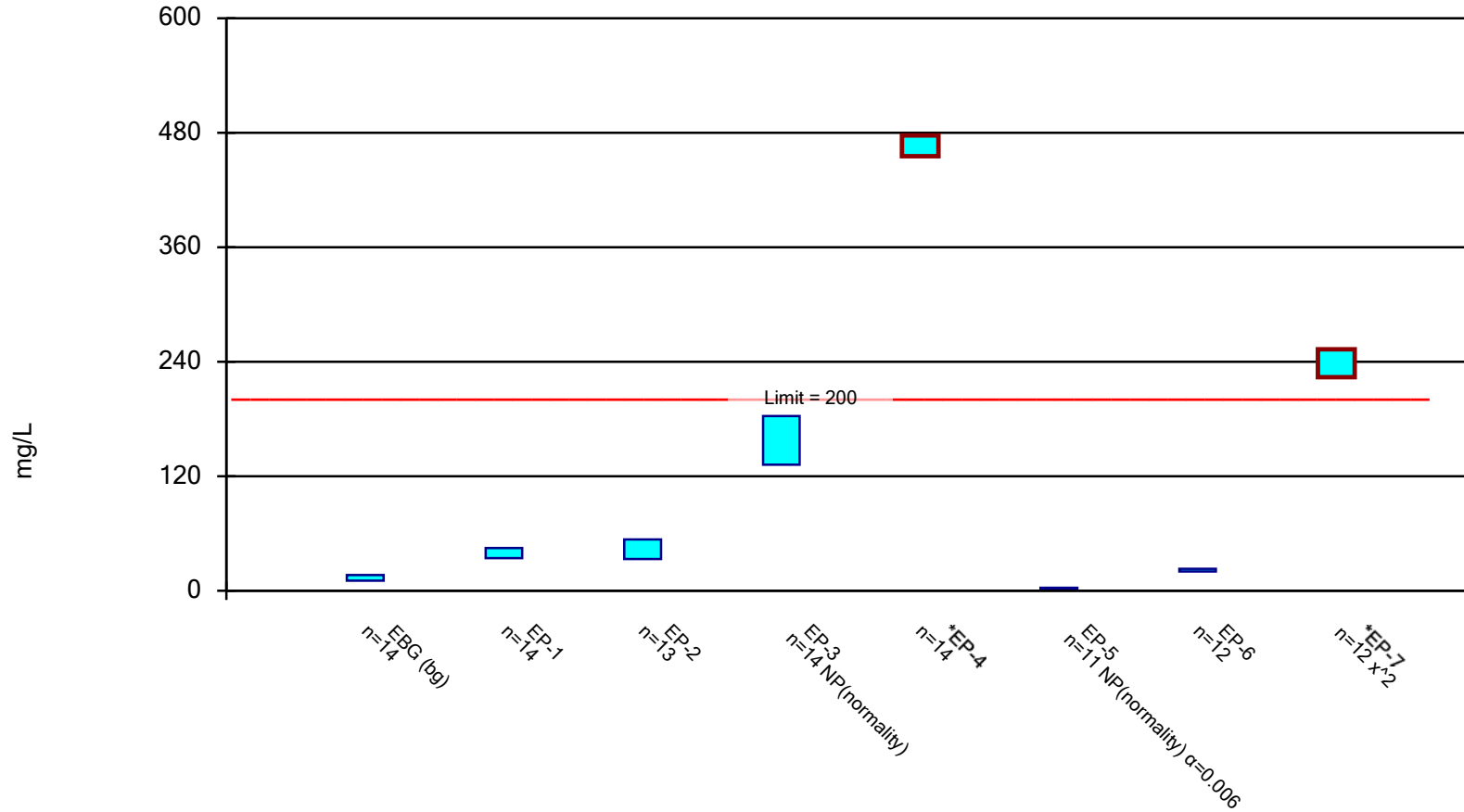


Constituent: Calcium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

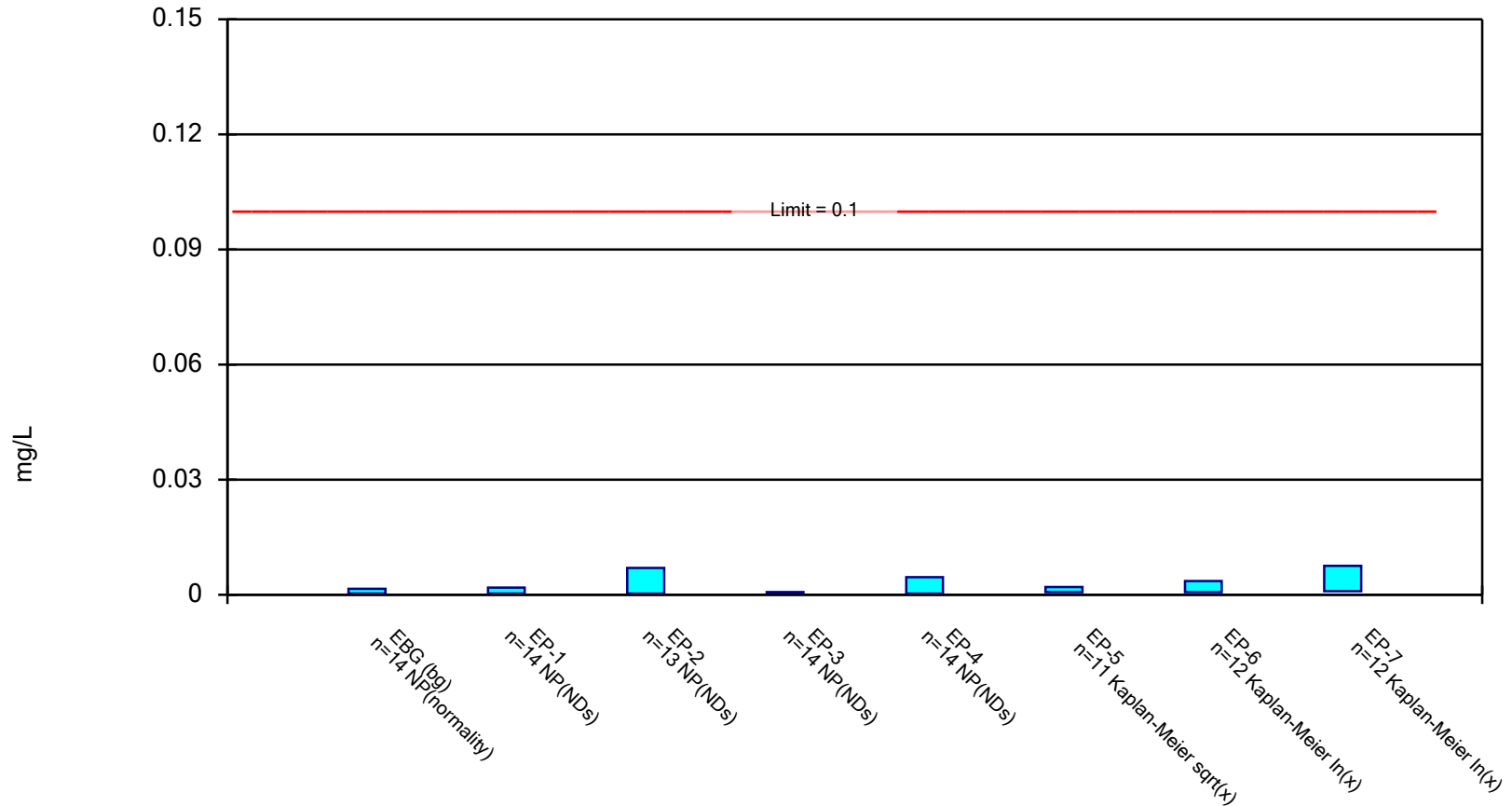


Constituent: Chloride Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



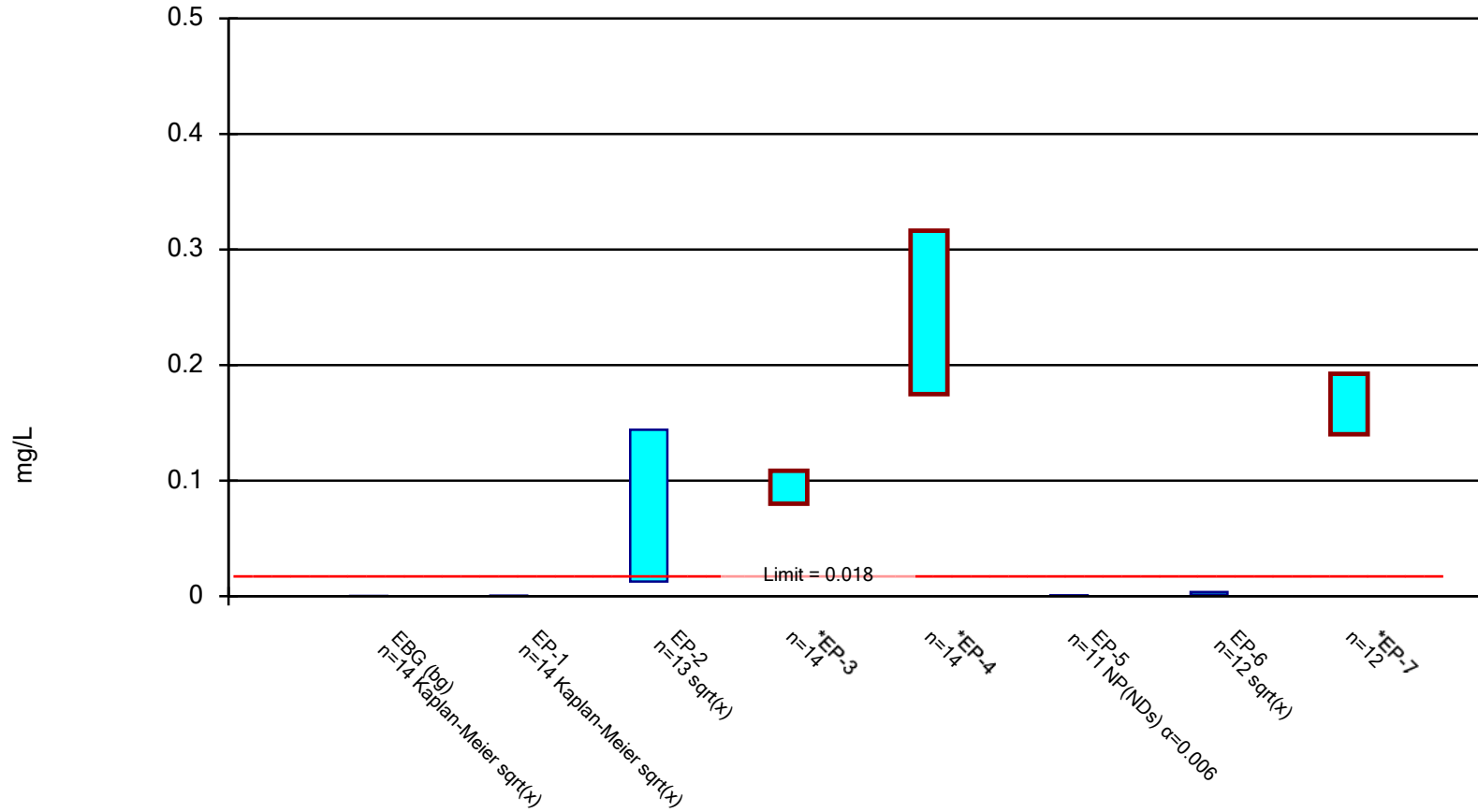
Constituent: Chromium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

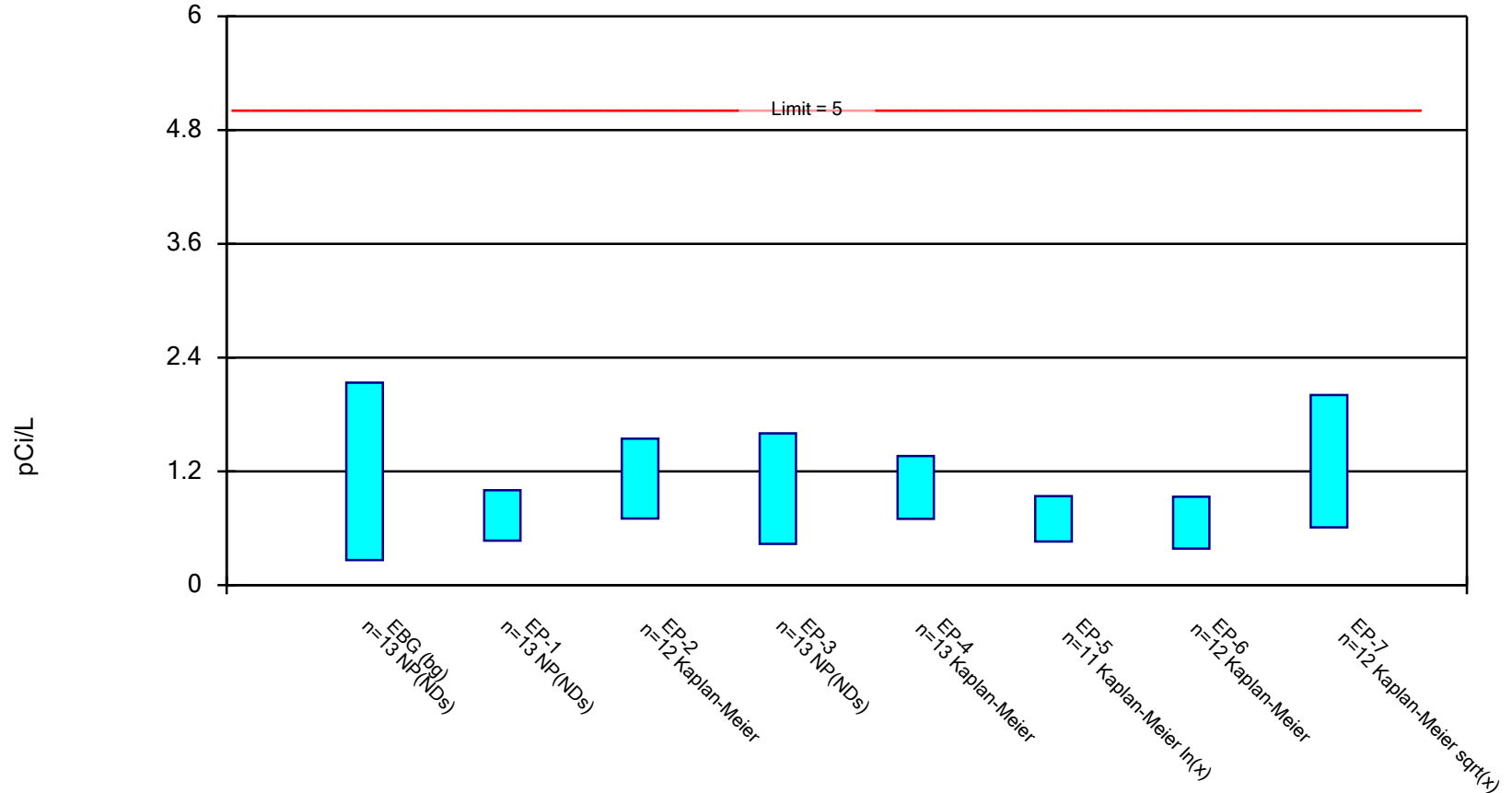


Constituent: Cobalt Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

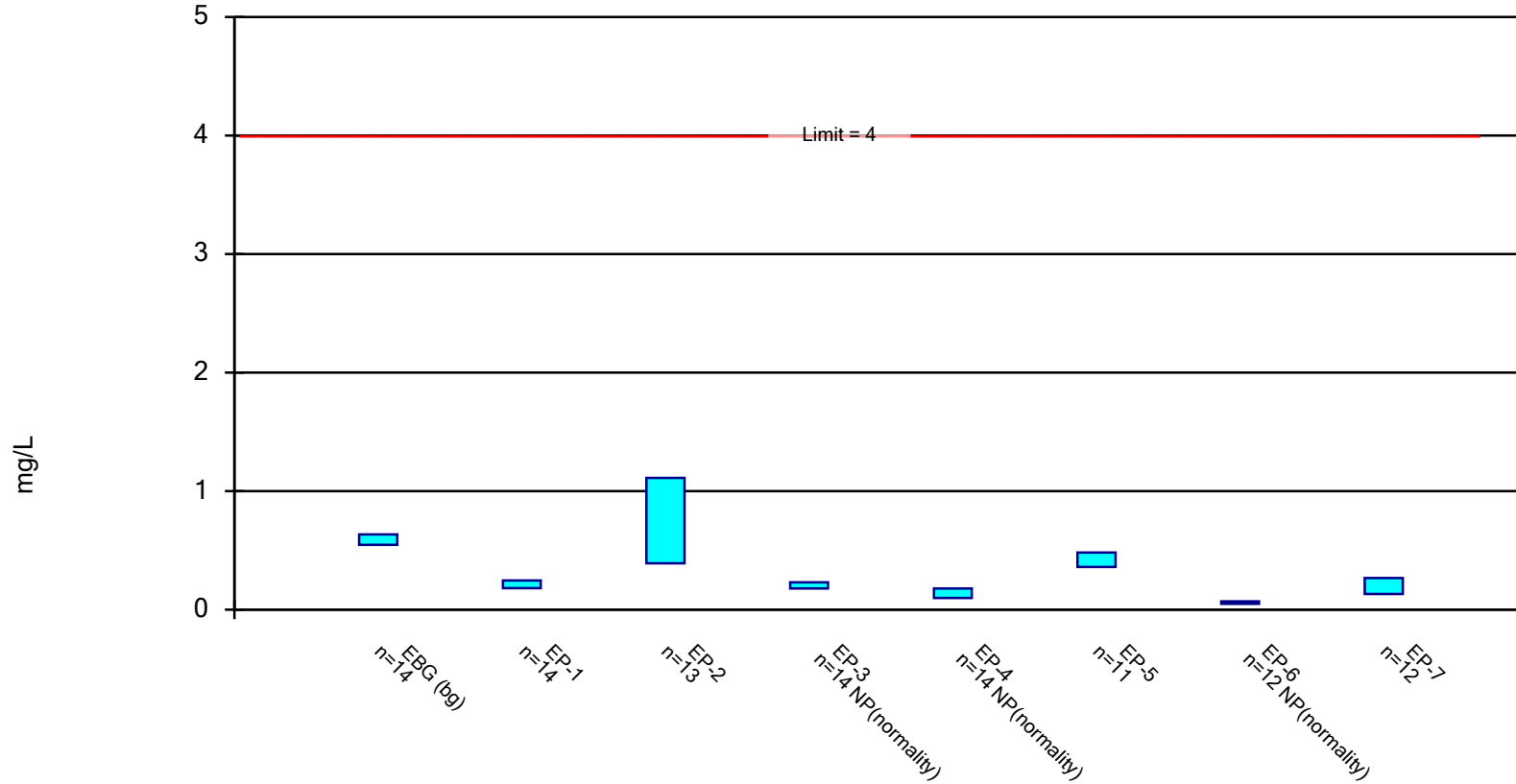
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium    Analysis Run 10/17/2024 4:45 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

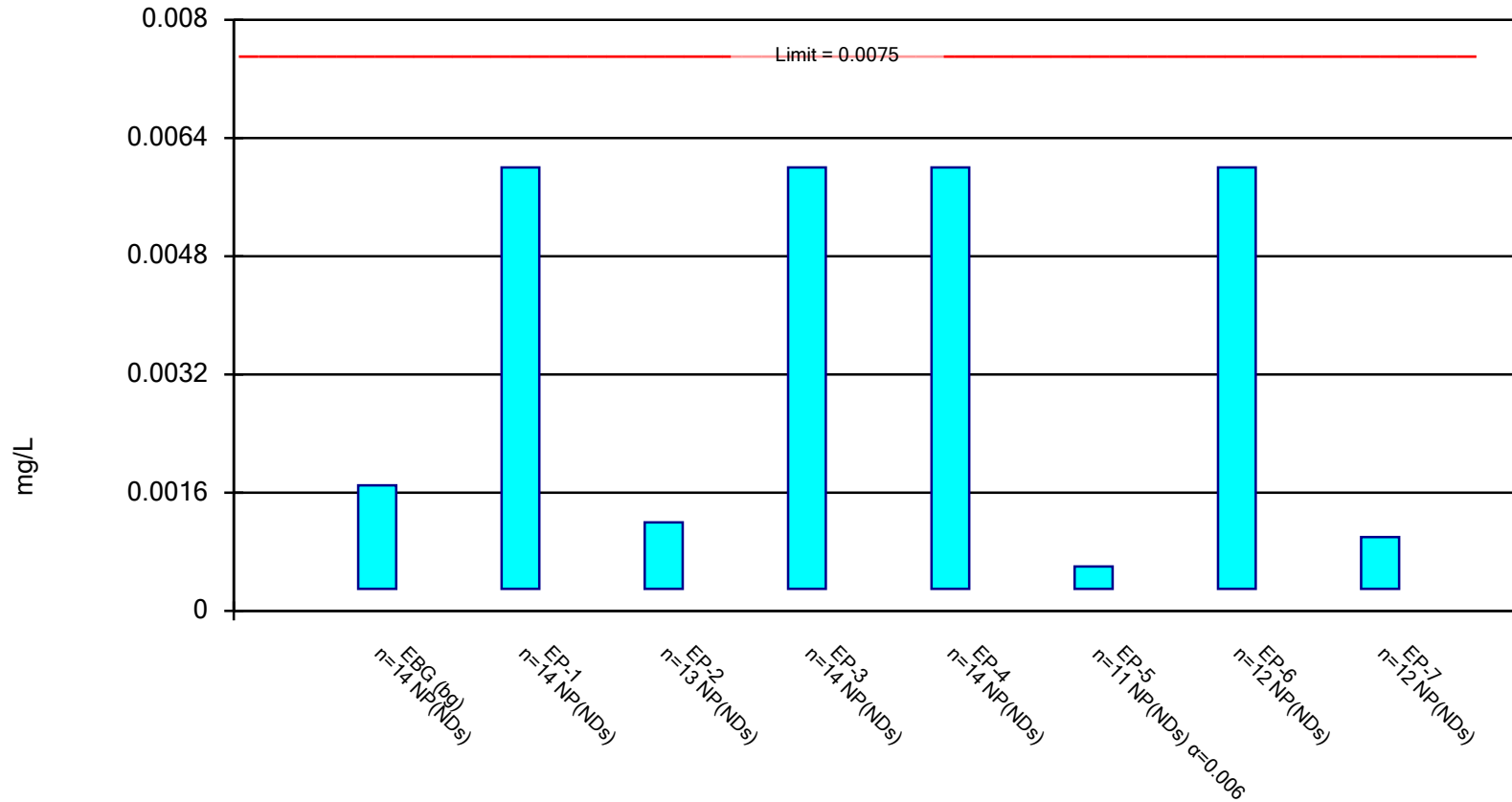


Constituent: Fluoride Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

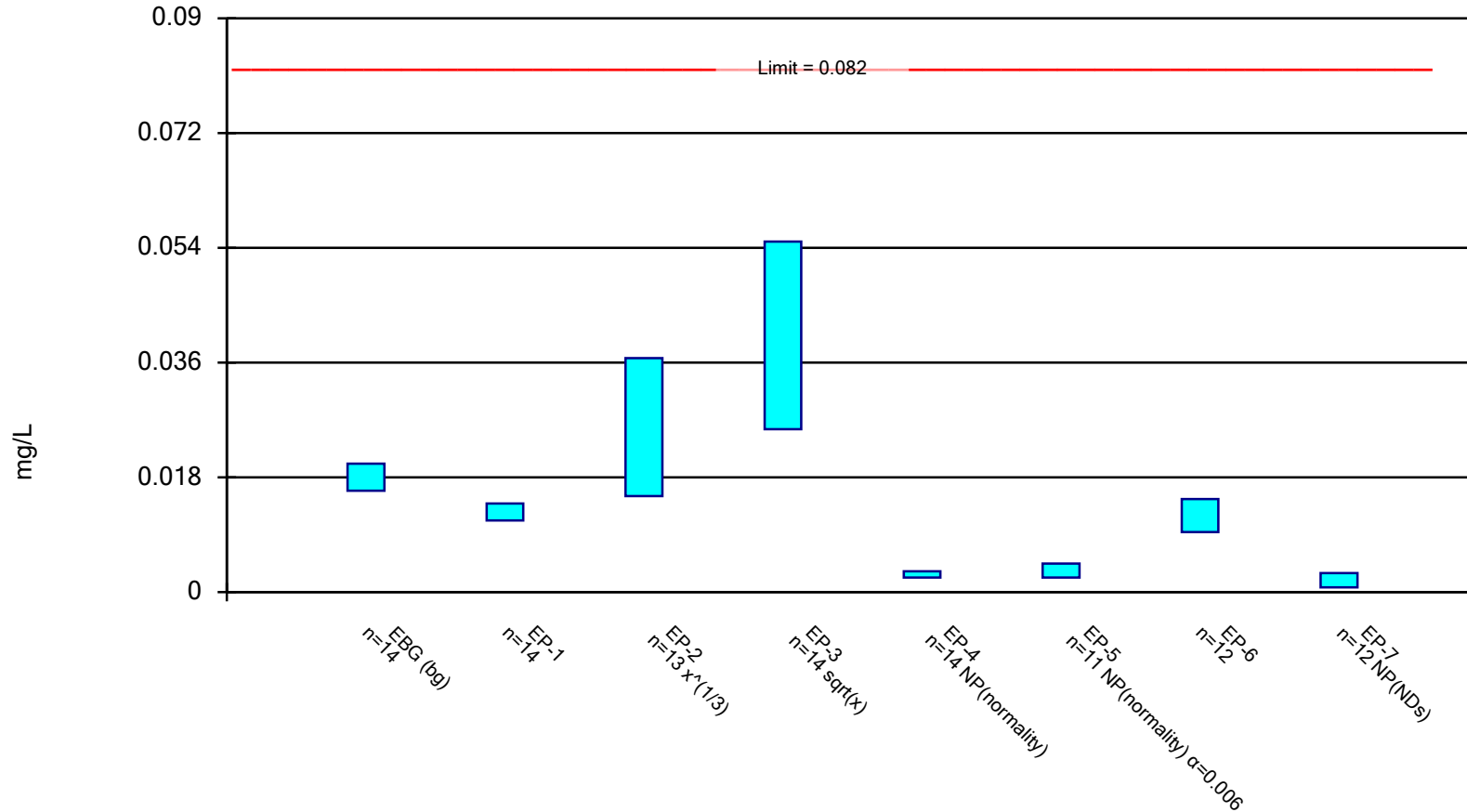


Constituent: Lead Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

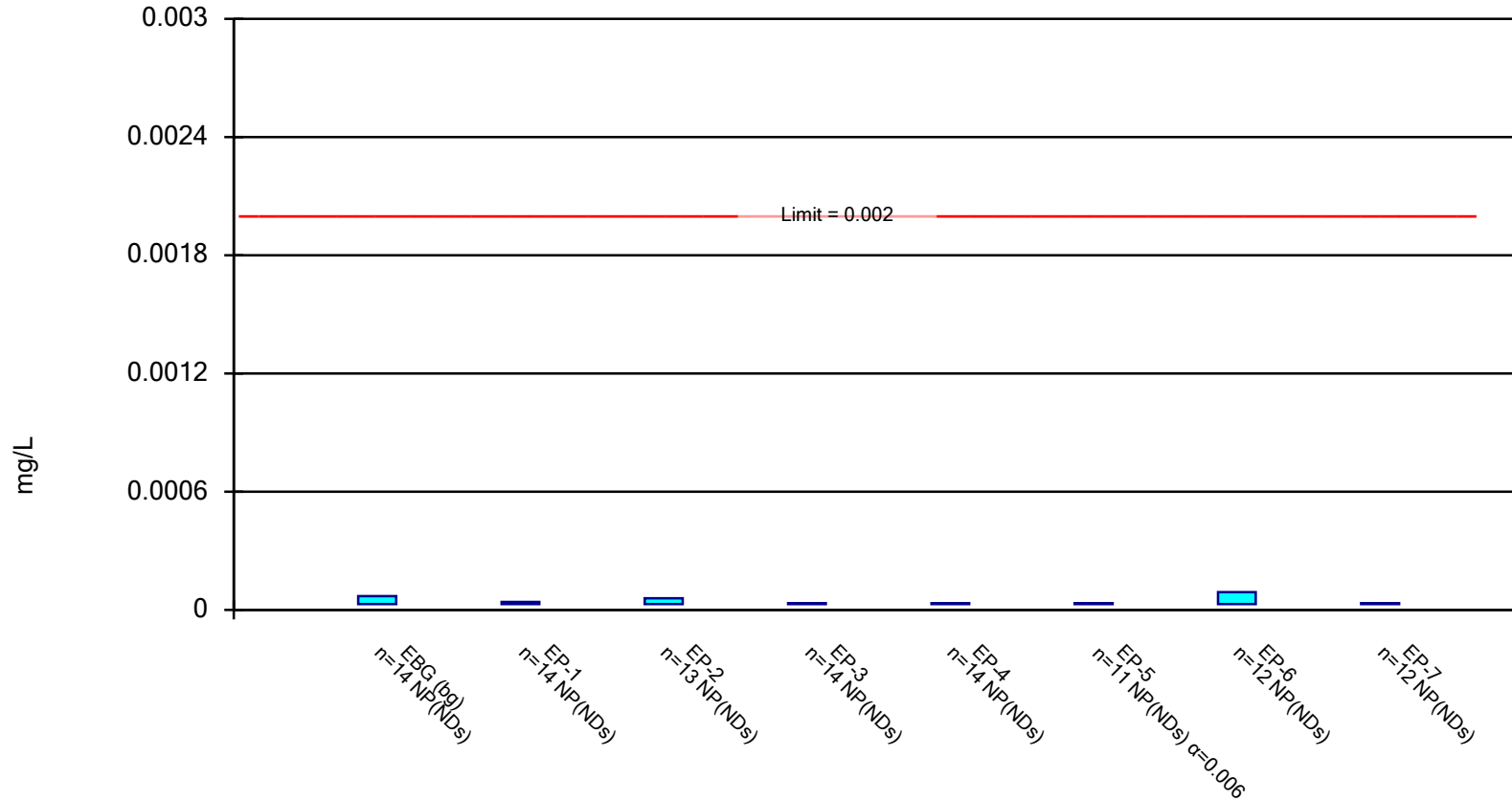


Constituent: Lithium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

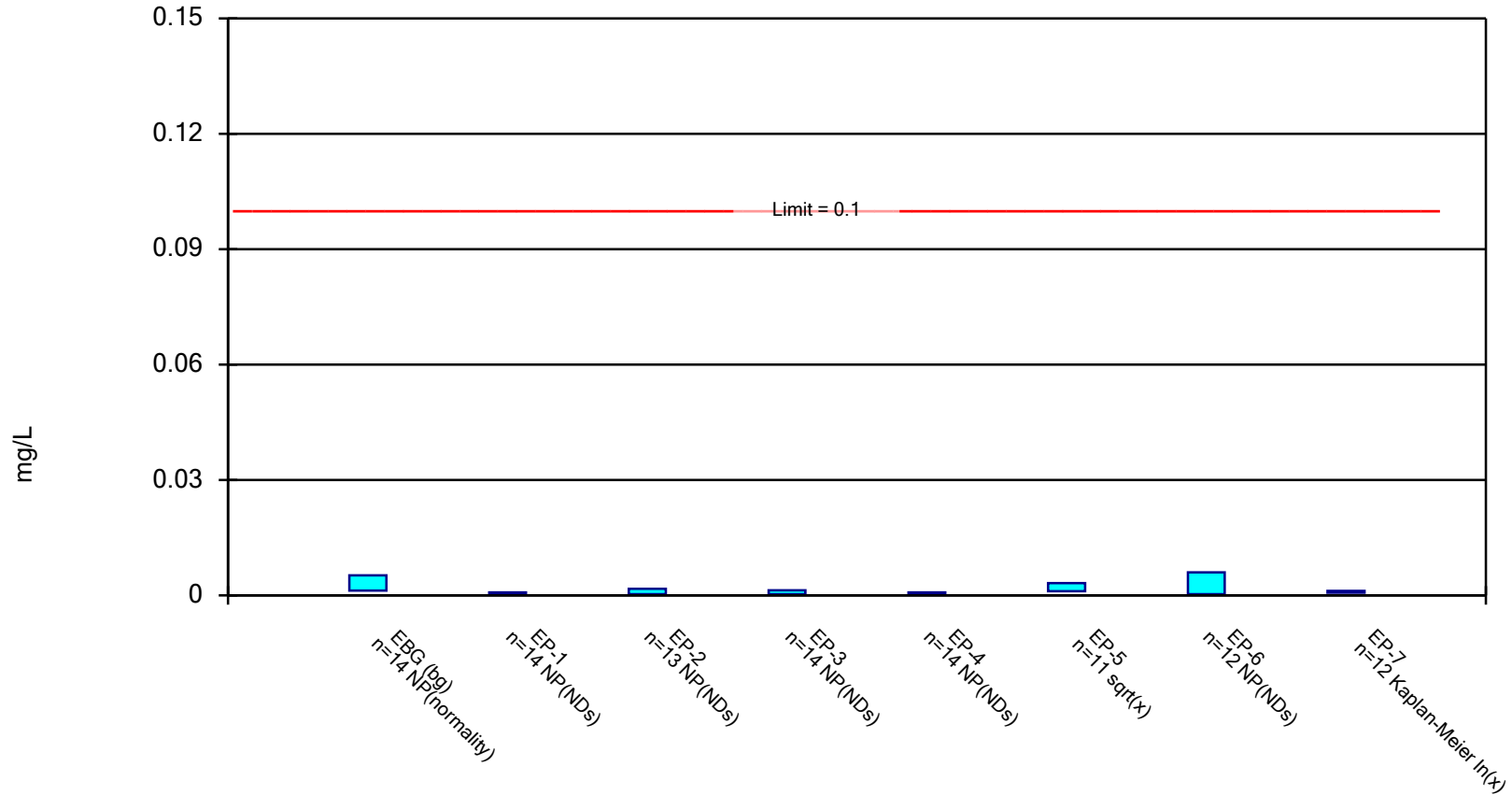


Constituent: Mercury Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

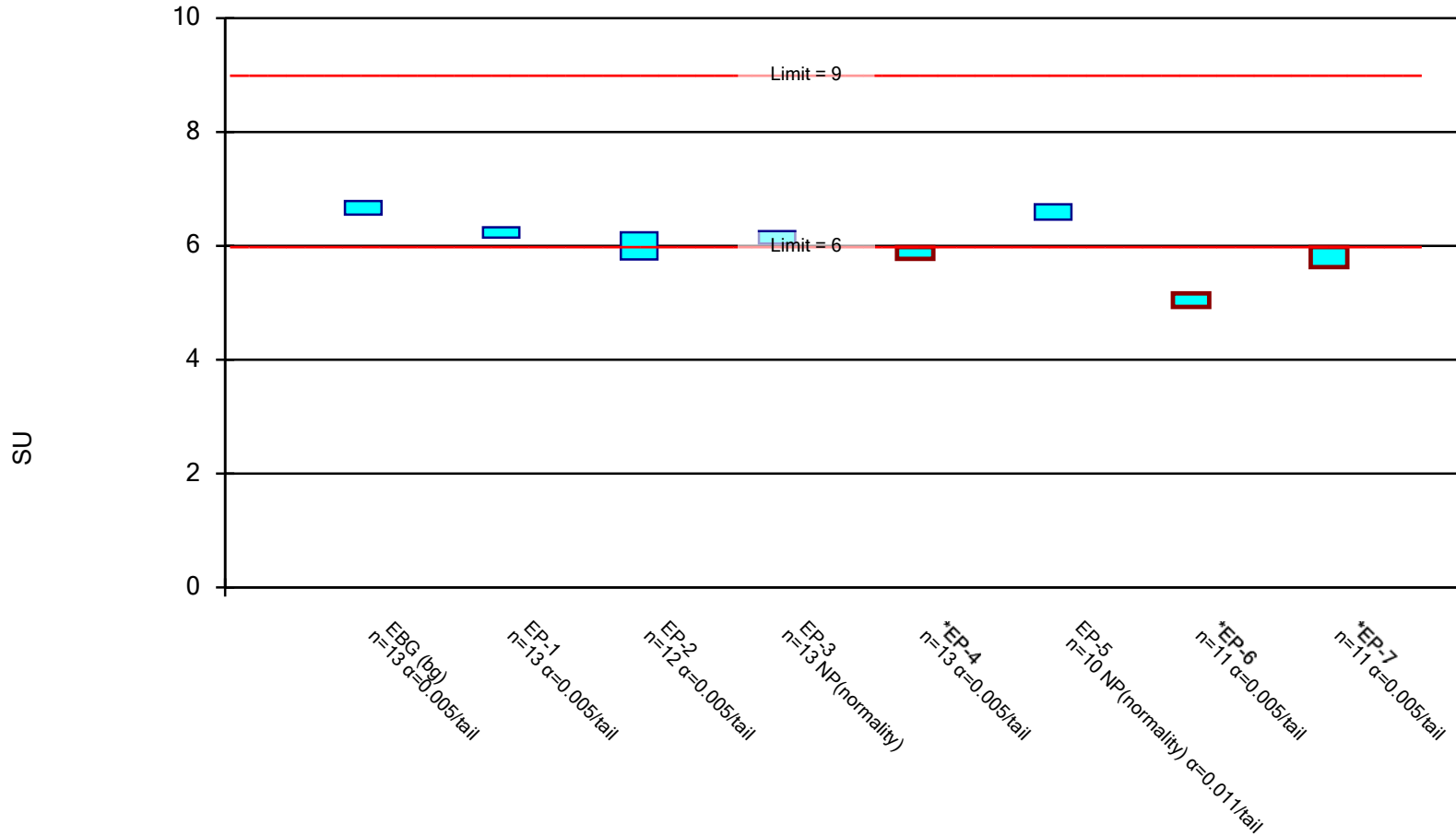


Constituent: Molybdenum Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



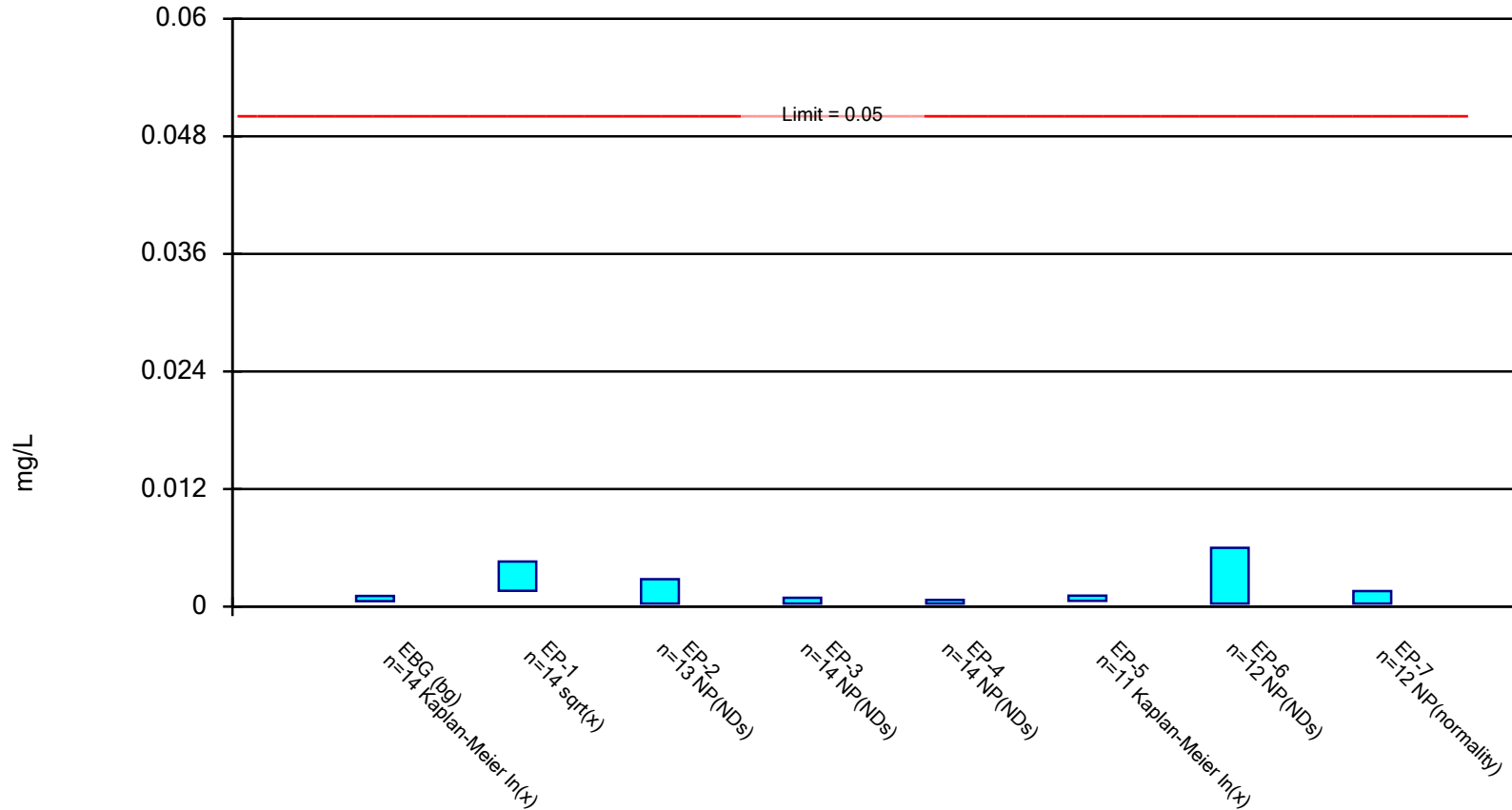
Constituent: pH Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

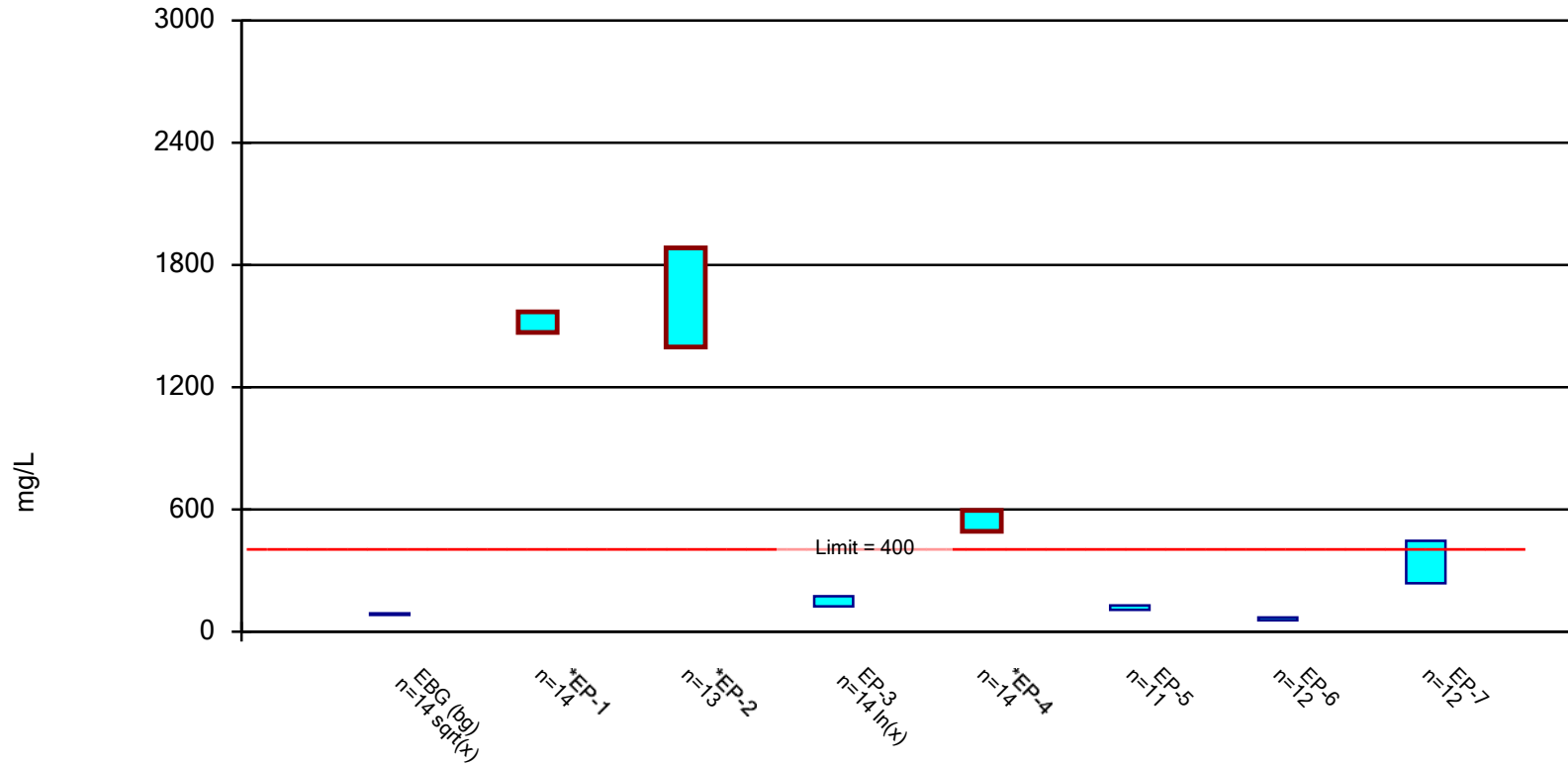


Constituent: Selenium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

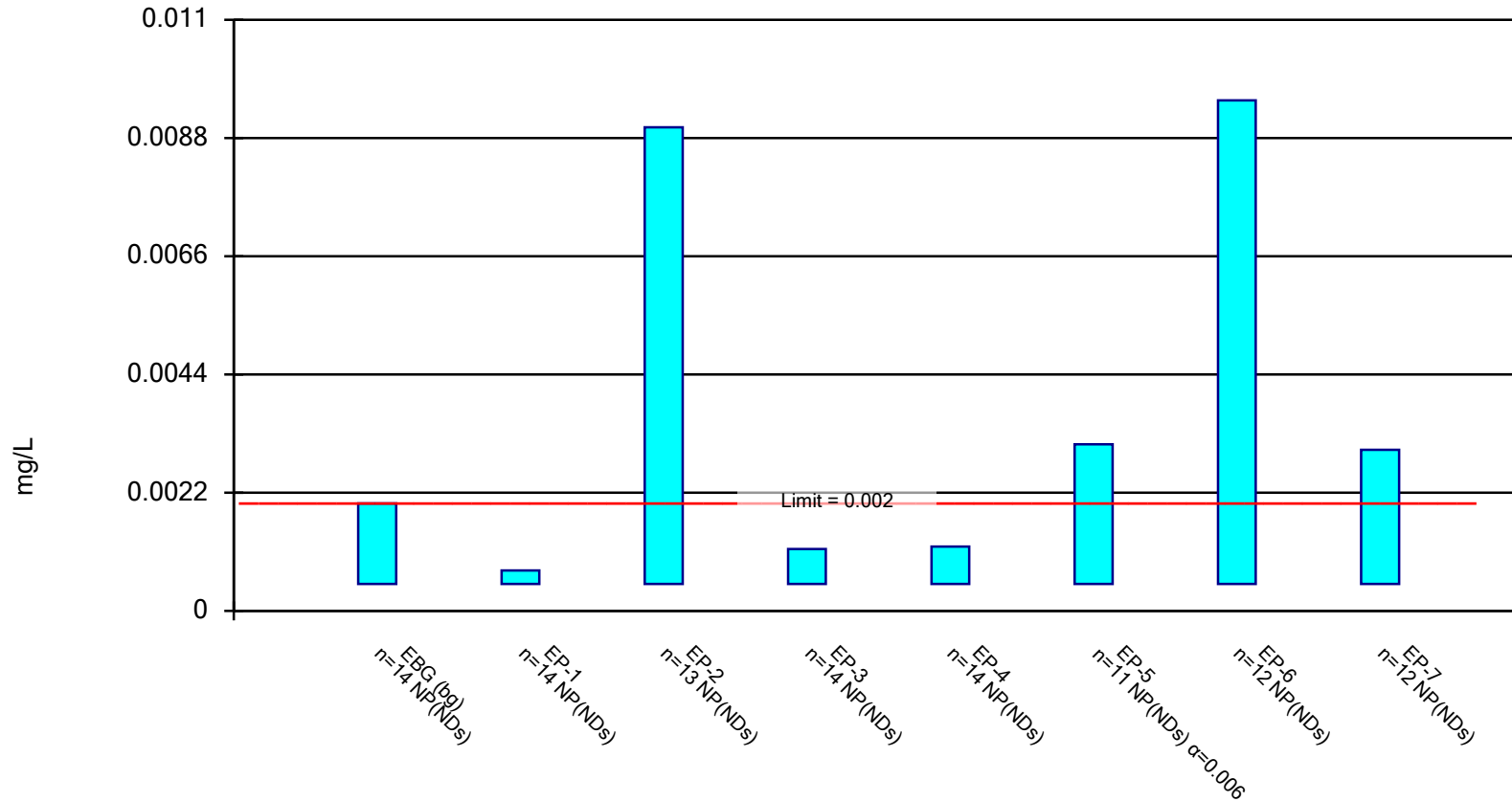


Constituent: Sulfate Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

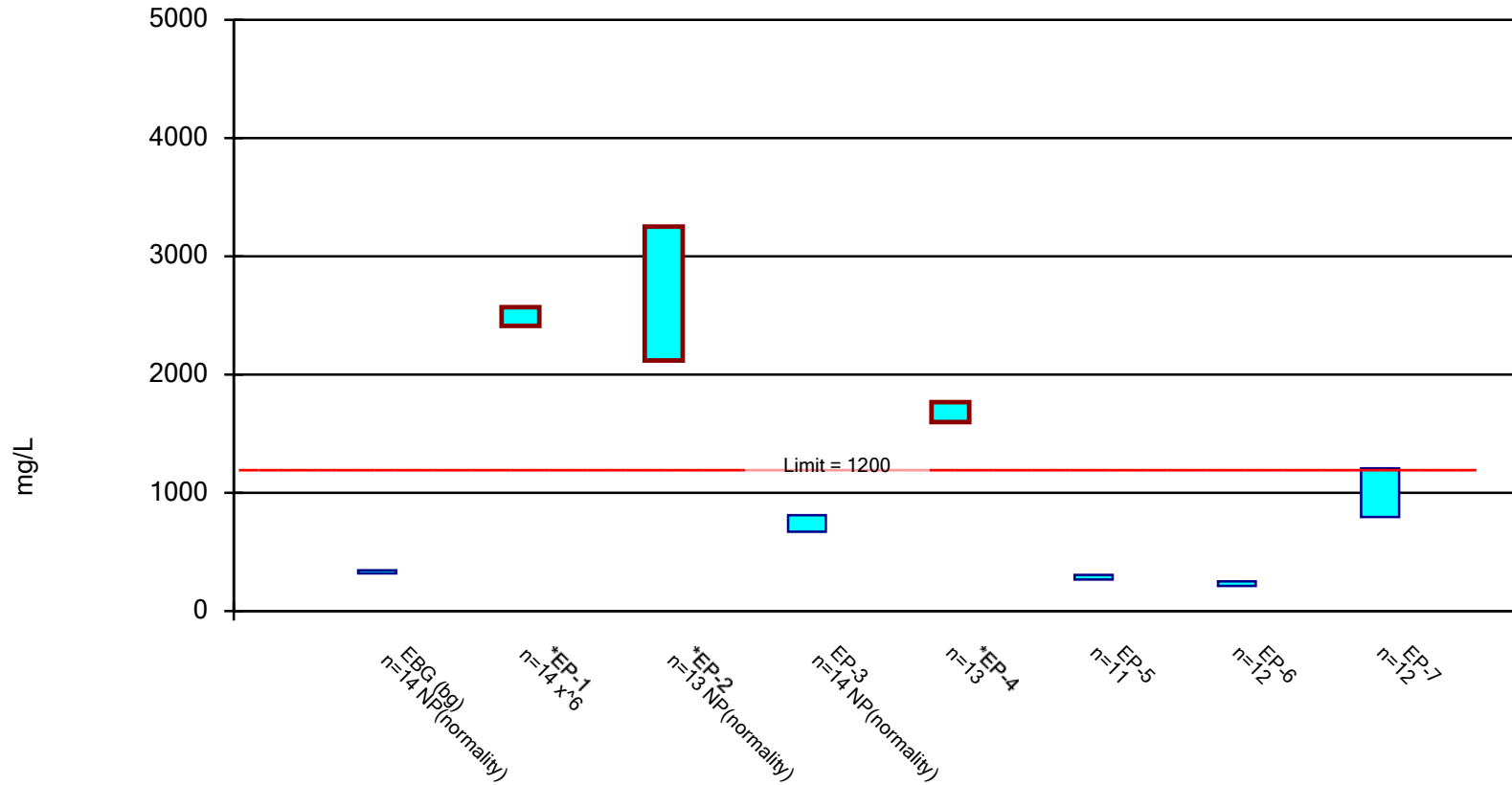


Constituent: Thallium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



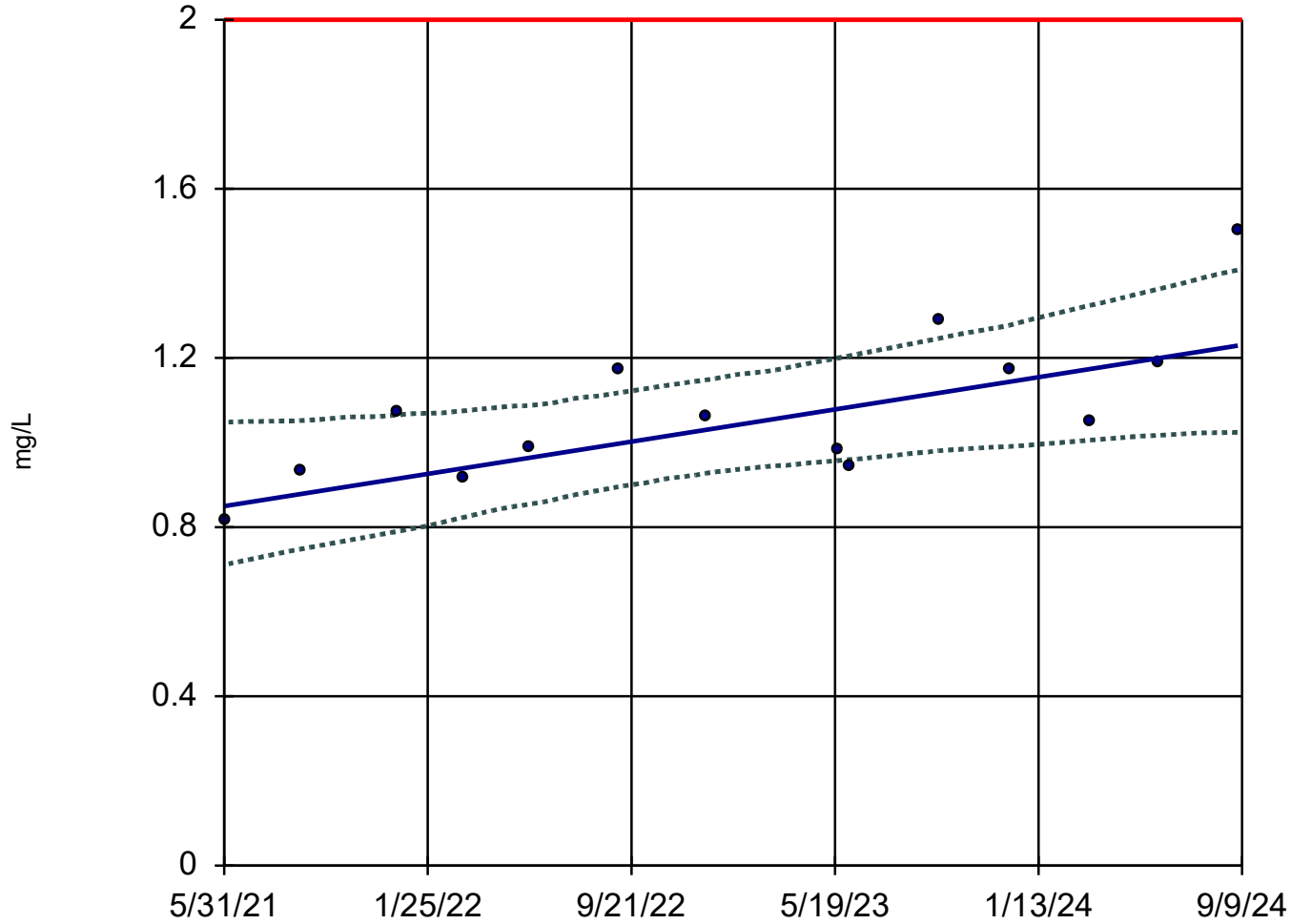
Constituent: Total Dissolved Solids Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



### Sen's Slope and 95% Confidence Band

EP-1



n = 14

Slope = 0.1162  
units per year.

Mann-Kendall  
statistic = 48  
critical = 44

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

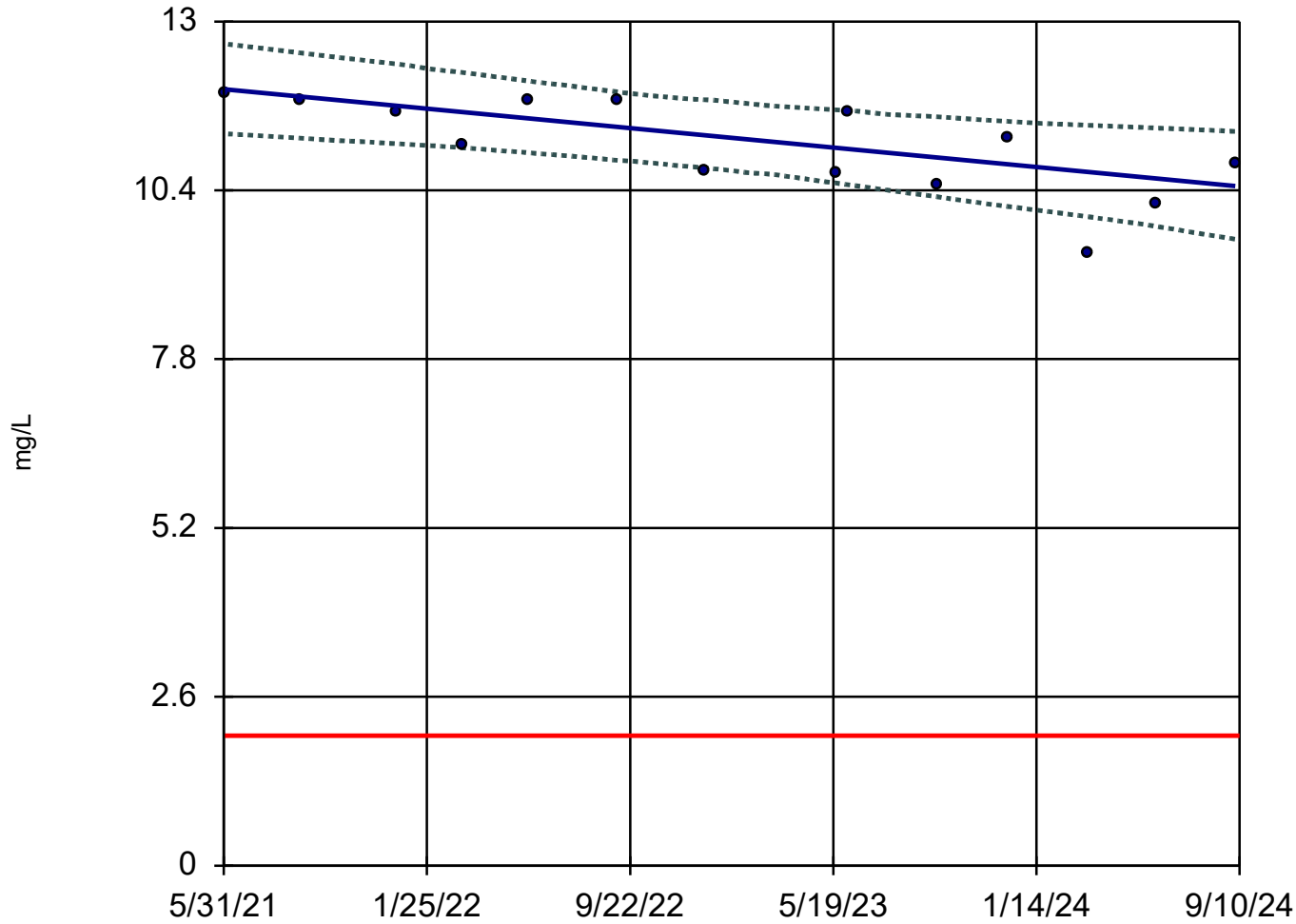
Confidence band is  
below IEPA (2).

Constituent: Boron Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-4



n = 14

Slope = -0.4563  
units per year.

Mann-Kendall  
statistic = -53  
critical = -44

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

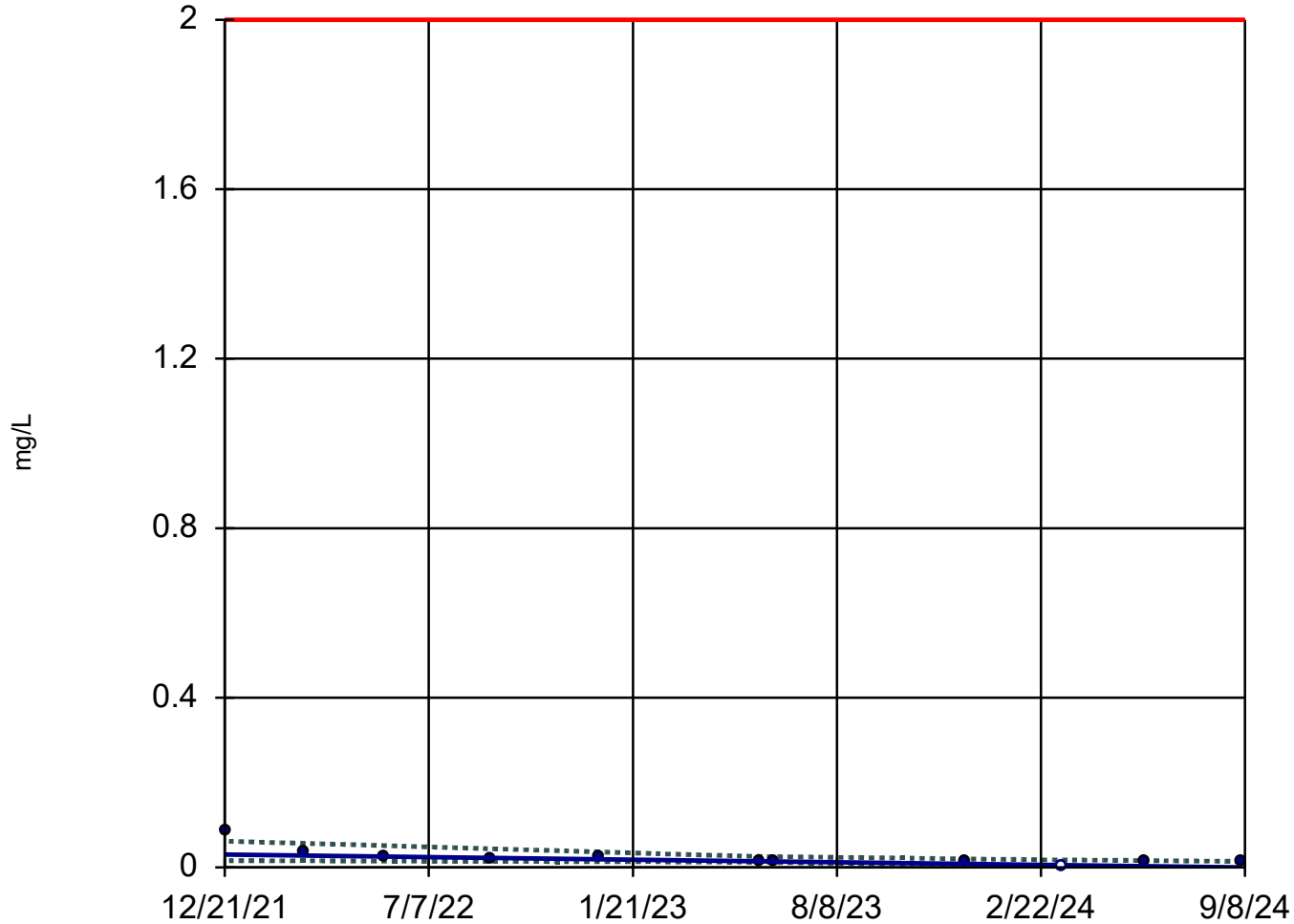
Confidence band is  
above IEPA (2).

Constituent: Boron Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Sen's Slope and 95% Confidence Band

EP-5



n = 11

Slope = -0.01114  
units per year.

Mann-Kendall  
statistic = -39  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
below IEPA (2).

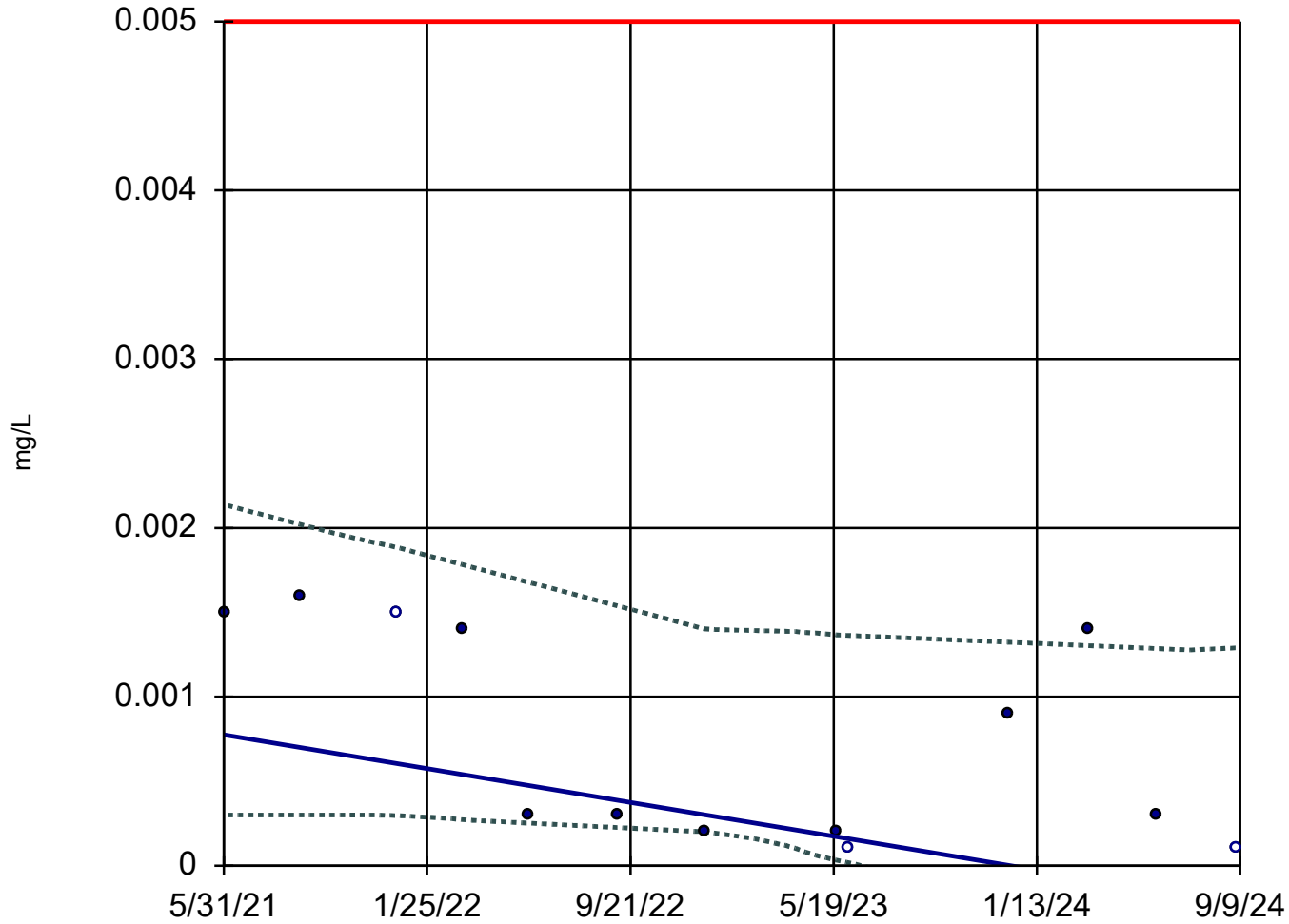
Constituent: Boron Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



### Sen's Slope and 95% Confidence Band

EP-2



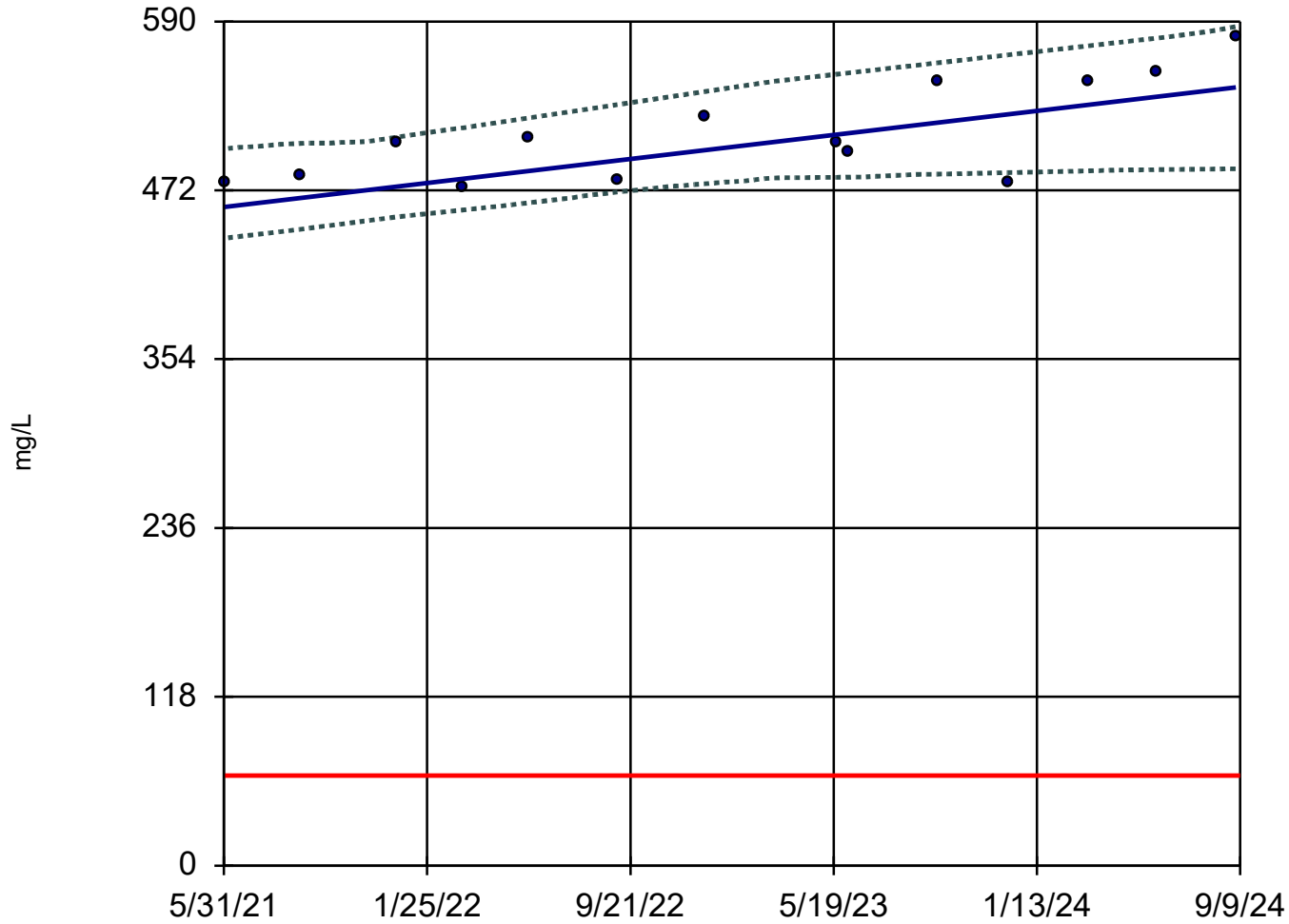
n = 13  
Slope = -0.0003053  
units per year.  
Mann-Kendall  
statistic = -41  
critical = -39  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.005).

Constituent: Cadmium Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-1



n = 14

Slope = 25.62  
units per year.

Mann-Kendall  
statistic = 46  
critical = 44

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

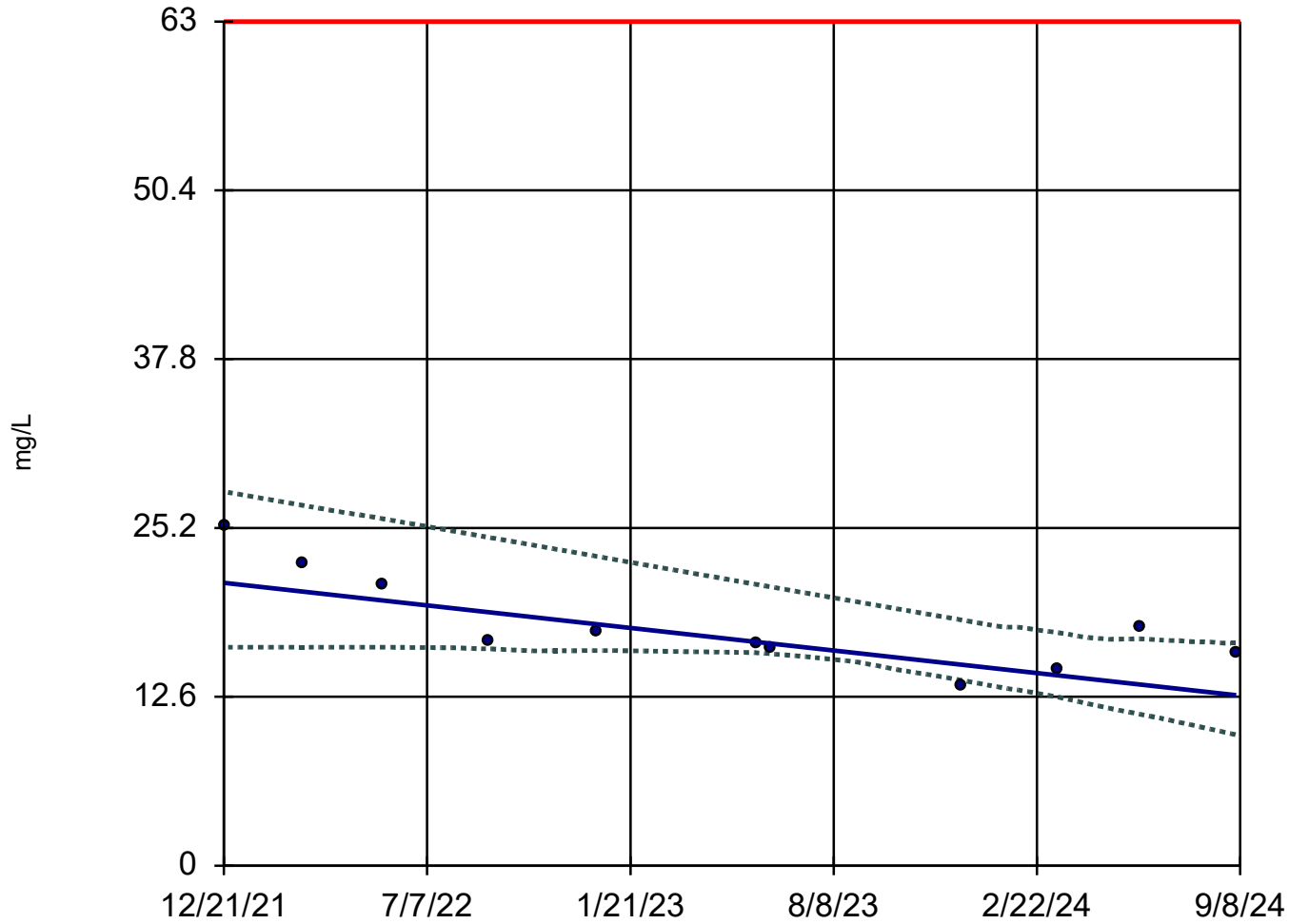
Confidence band is  
above Background (63).

Constituent: Calcium Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



n = 11

Slope = -3.099  
units per year.

Mann-Kendall  
statistic = -35  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

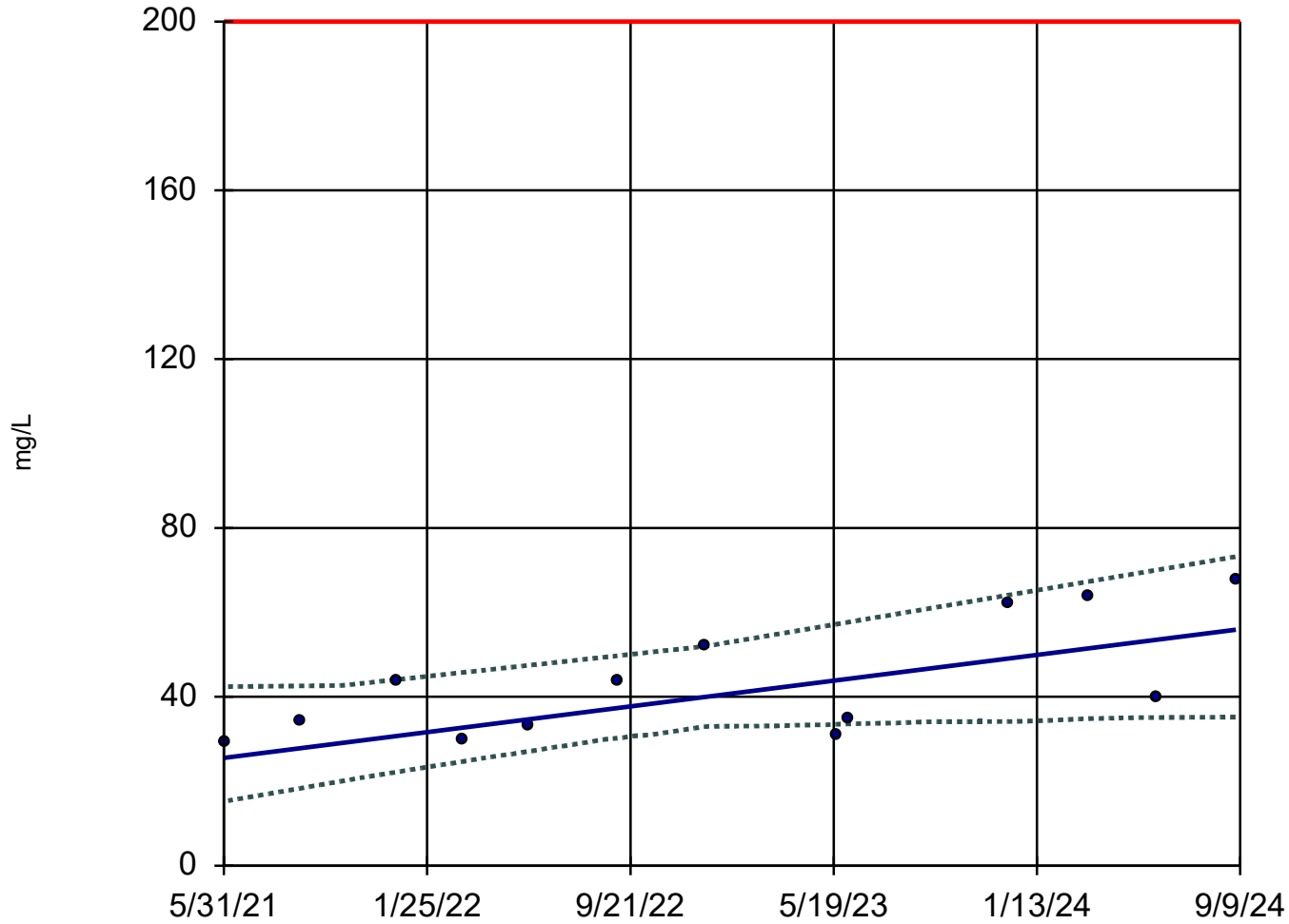
Confidence band is  
below Background (63).

Constituent: Calcium Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-2



n = 13

Slope = 9.297  
units per year.

Mann-Kendall  
statistic = 44  
critical = 39

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

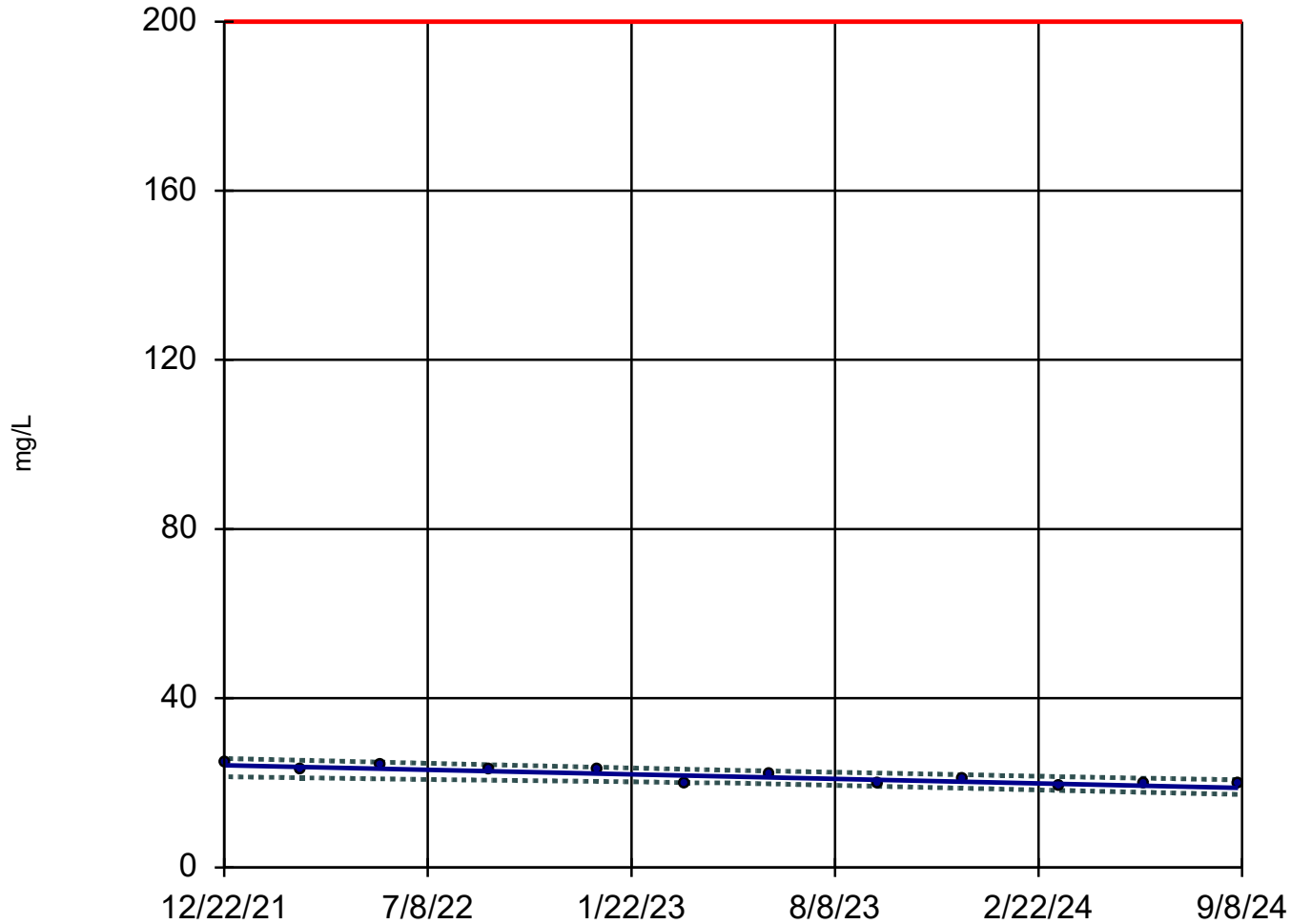
Confidence band is  
below IEPA (200).

Constituent: Chloride Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Sen's Slope and 95% Confidence Band

EP-6



n = 12

Slope = -1.956  
units per year.

Mann-Kendall  
statistic = -48  
critical = -35

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

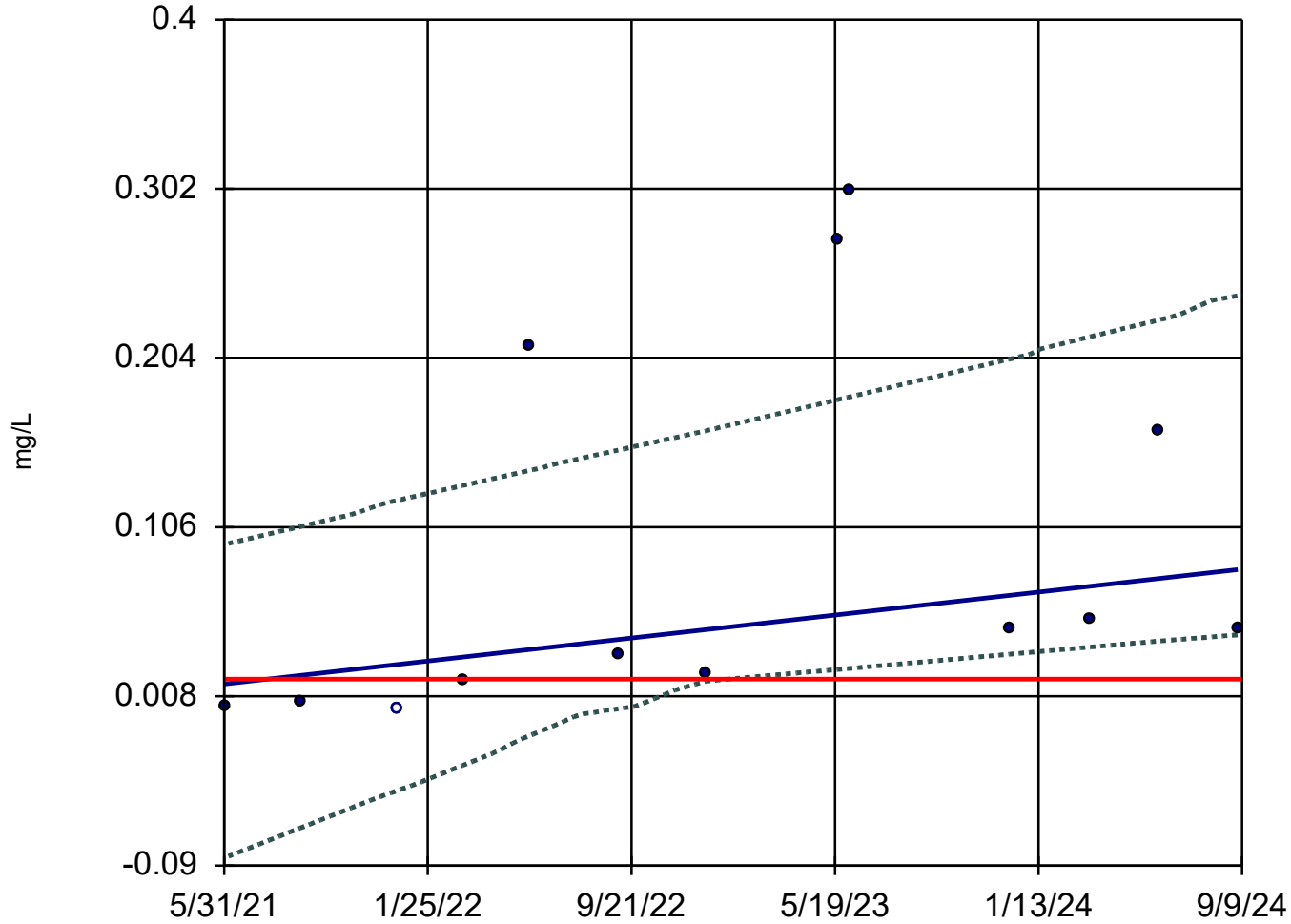
Confidence band is  
below IEPA (200).

Constituent: Chloride Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Sen's Slope and 95% Confidence Band

EP-2



n = 13

Slope = 0.02029  
units per year.

Mann-Kendall  
statistic = 40  
critical = 39

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

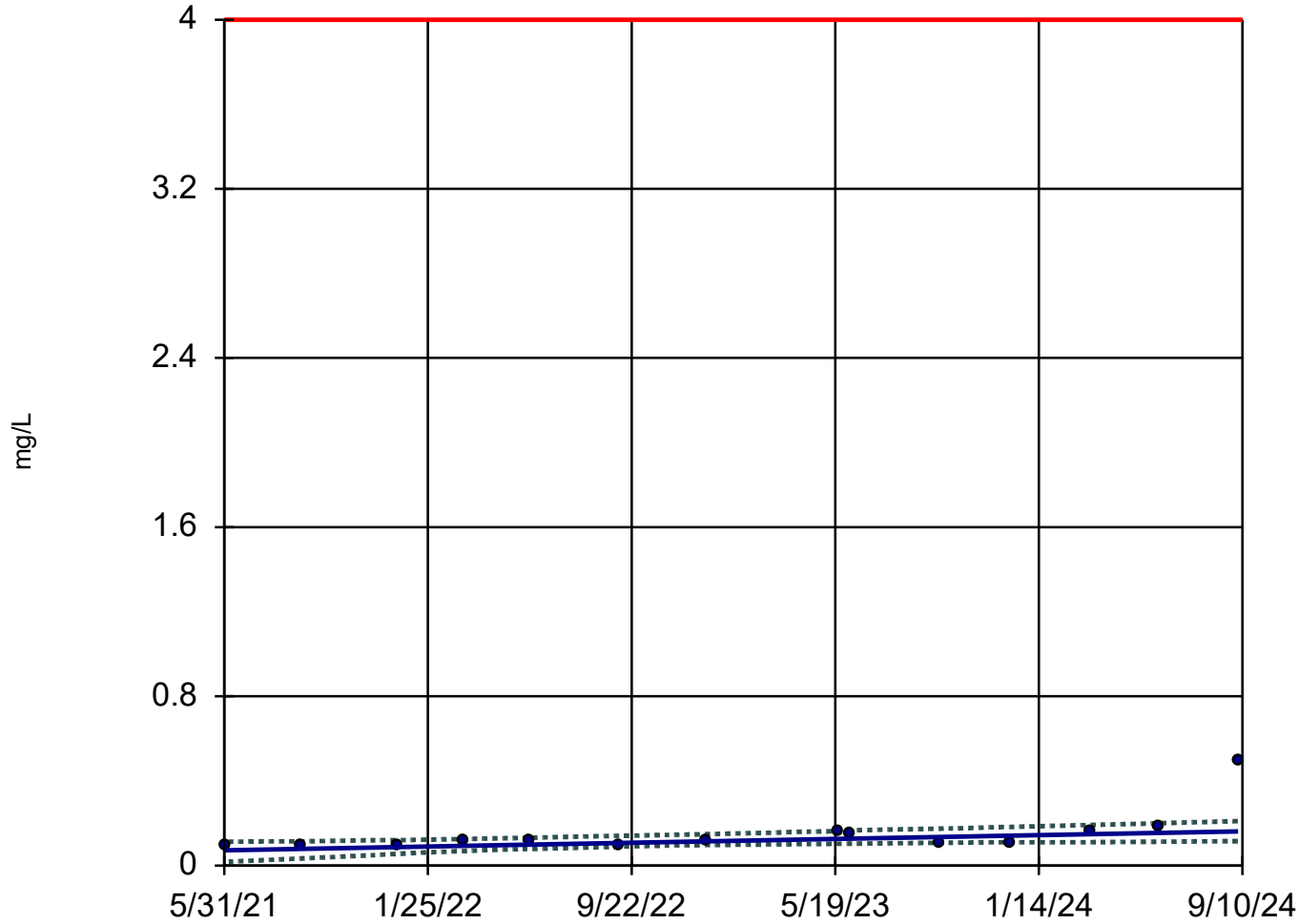
Confidence band intersects  
EPA (0.018) on 01/22/23.

Constituent: Cobalt Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Sen's Slope and 95% Confidence Band

EP-4



n = 14

Slope = 0.02756  
units per year.

Mann-Kendall  
statistic = 54  
critical = 44

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

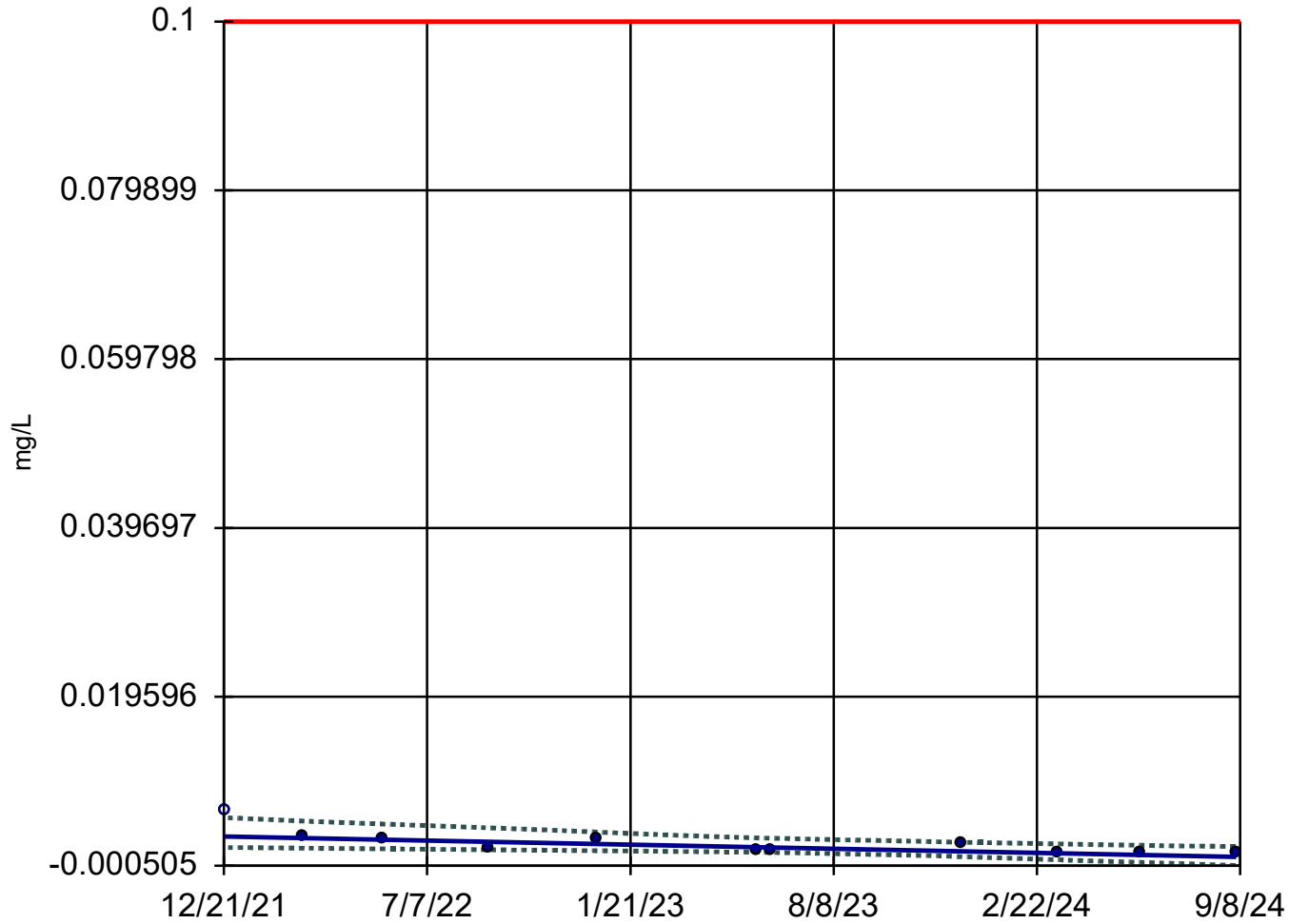
Confidence band is  
below EPA (4).

Constituent: Fluoride Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



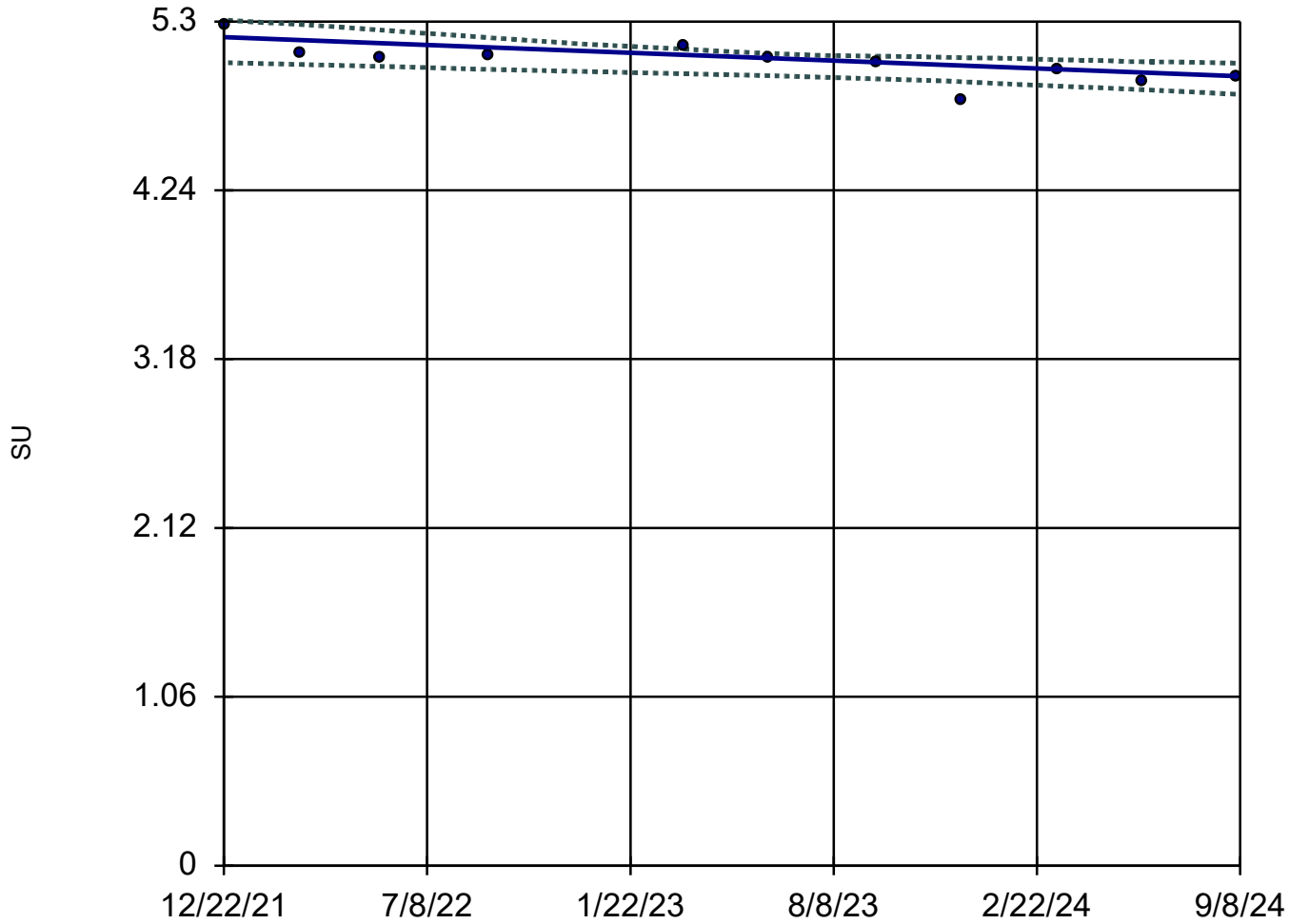
n = 11  
Slope = -0.0008902  
units per year.  
Mann-Kendall  
statistic = -41  
critical = -31  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.1).

Constituent: Molybdenum Analysis Run 10/17/2024 3:57 PM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



### Sen's Slope and 95% Confidence Band

EP-6



n = 11

Slope = -0.0906  
units per year.

Mann-Kendall  
statistic = -38  
critical = -31

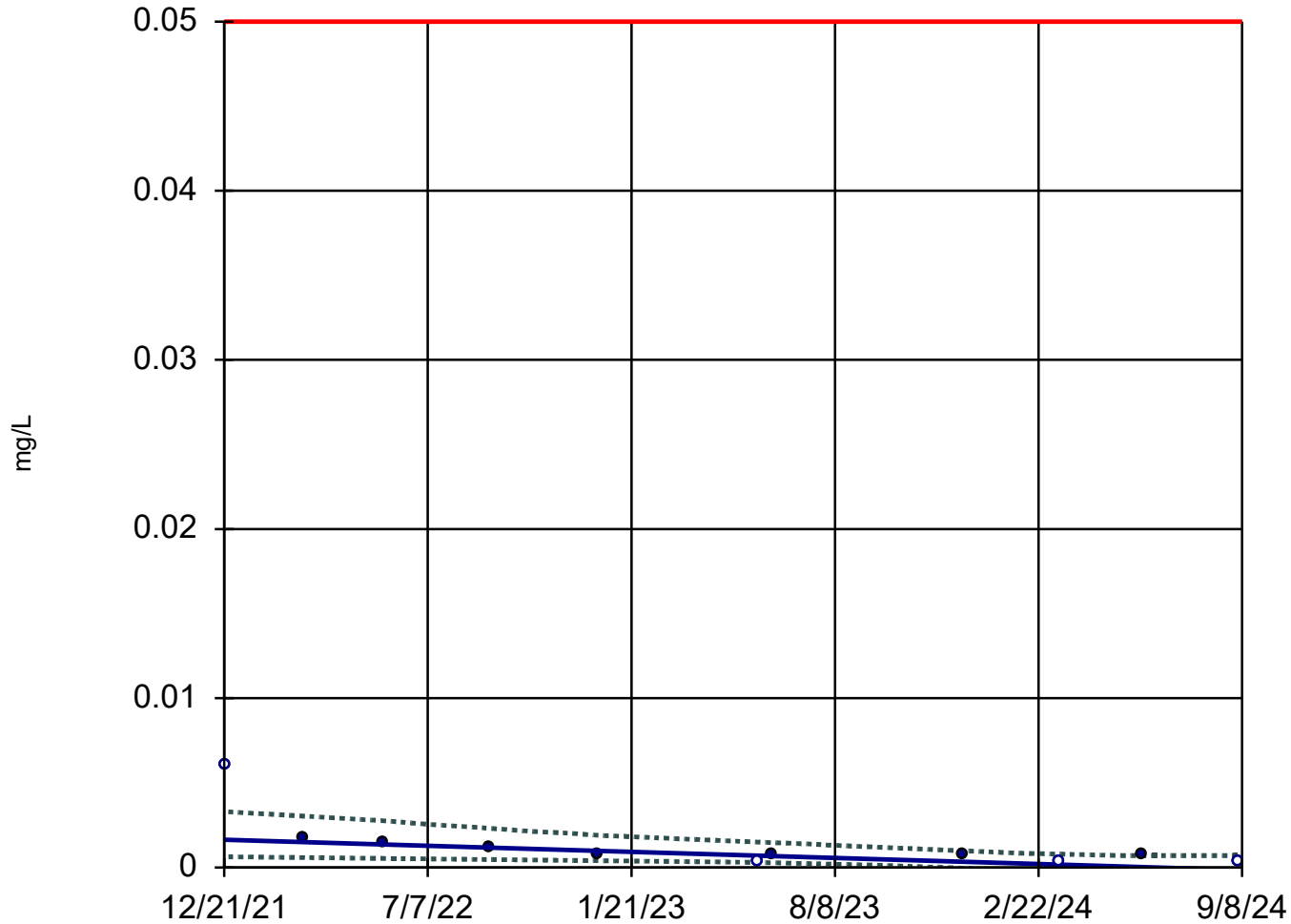
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: pH Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



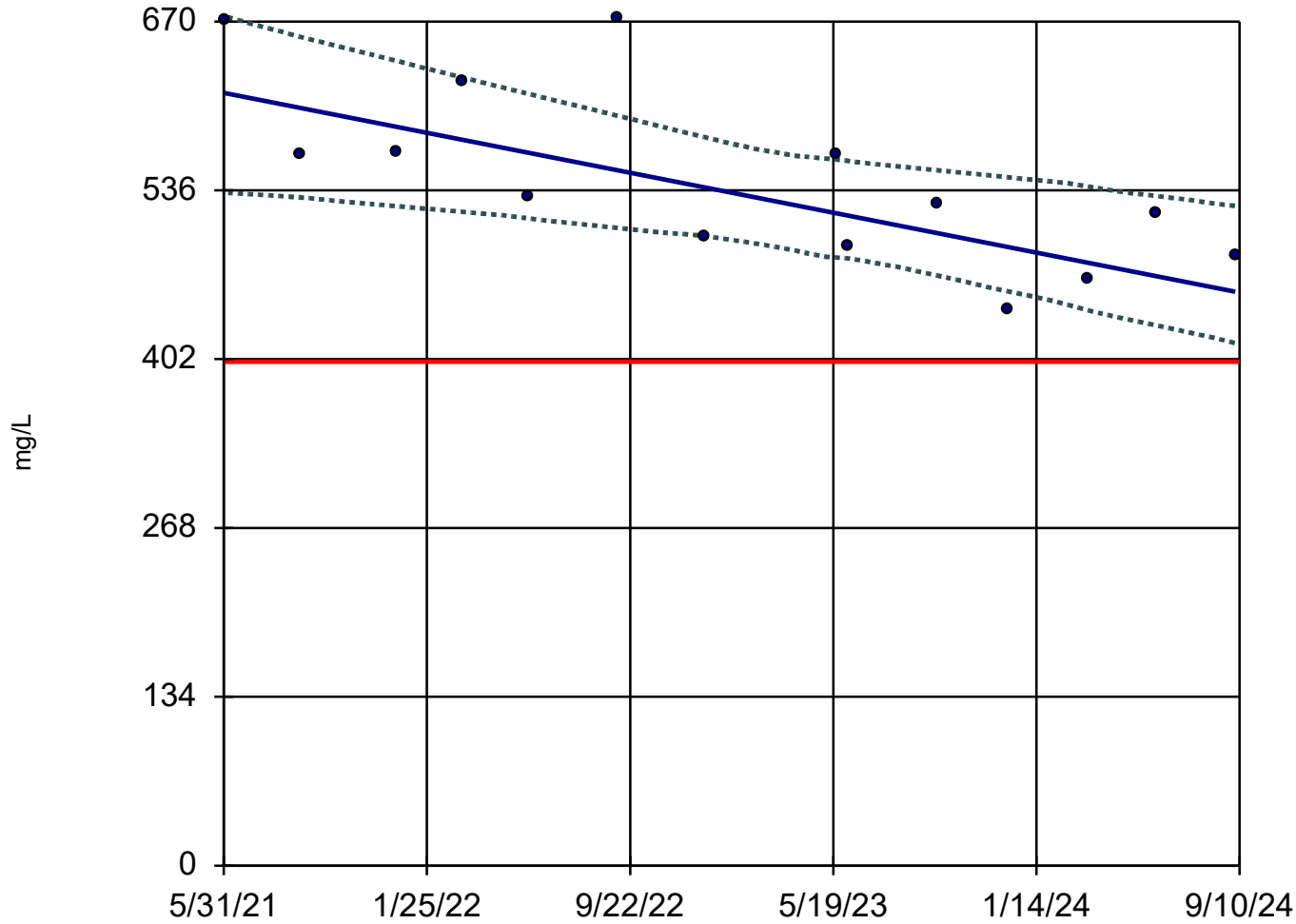
n = 11  
Slope = -0.0006646  
units per year.  
Mann-Kendall  
statistic = -37  
critical = -31  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.05).

Constituent: Selenium Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-4



n = 14

Slope = -48.31  
units per year.

Mann-Kendall  
statistic = -53  
critical = -44

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

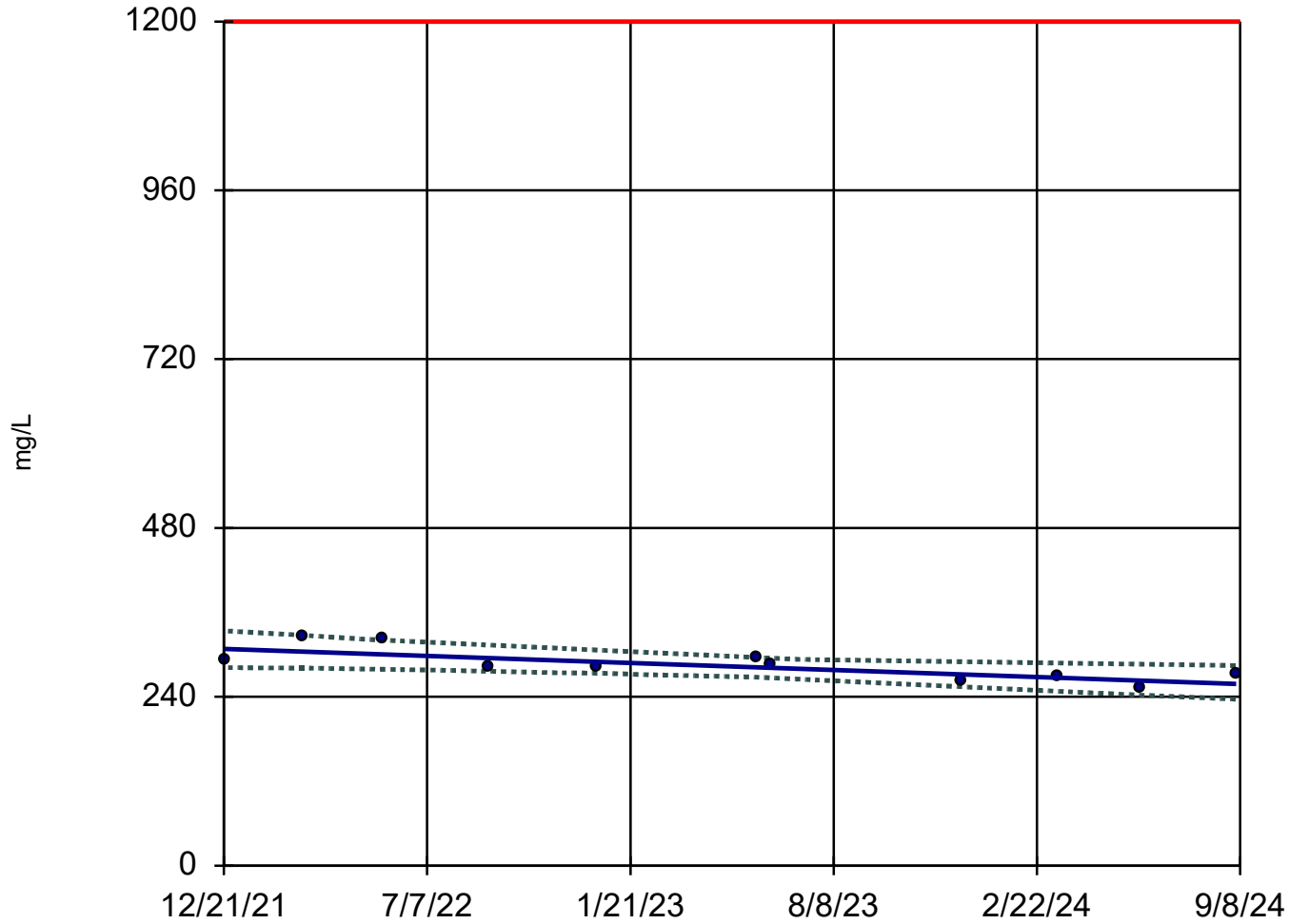
Confidence band is  
above IEPA (400).

Constituent: Sulfate Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

# Sen's Slope and 95% Confidence Band

EP-5



n = 11

Slope = -18.46  
units per year.

Mann-Kendall  
statistic = -32  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
below IEPA (1200).

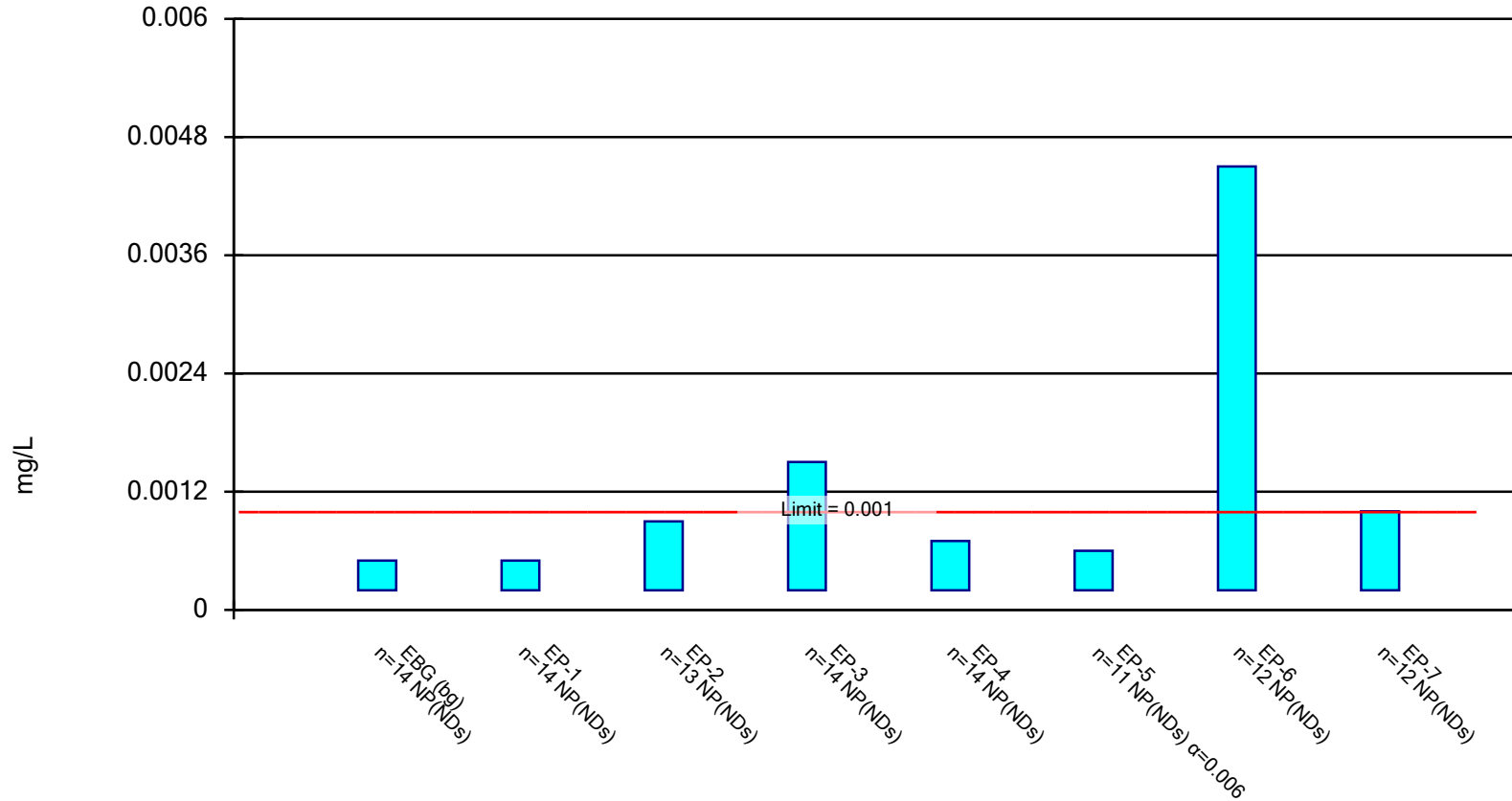
Constituent: Total Dissolved Solids Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

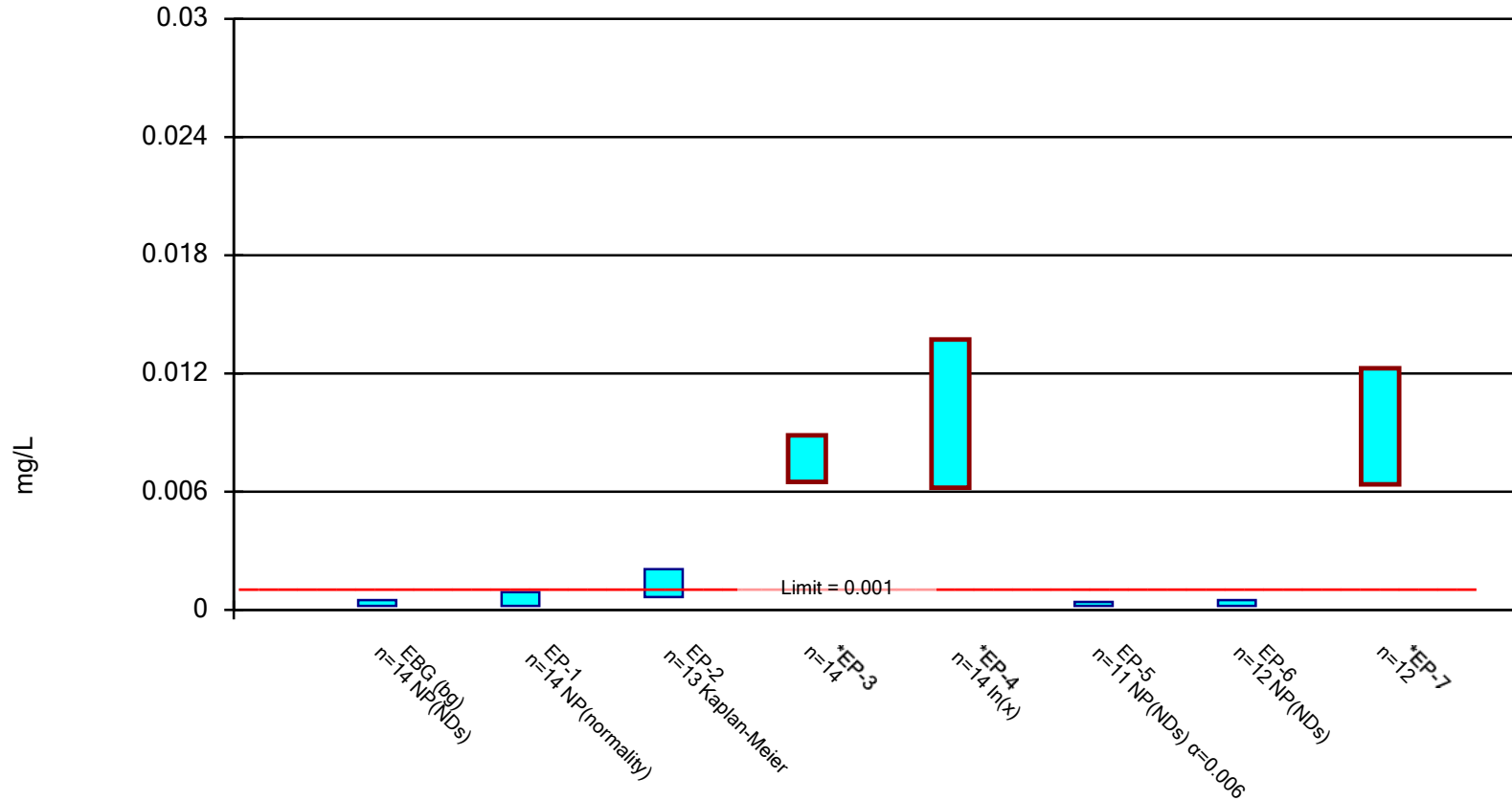


Constituent: Antimony Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

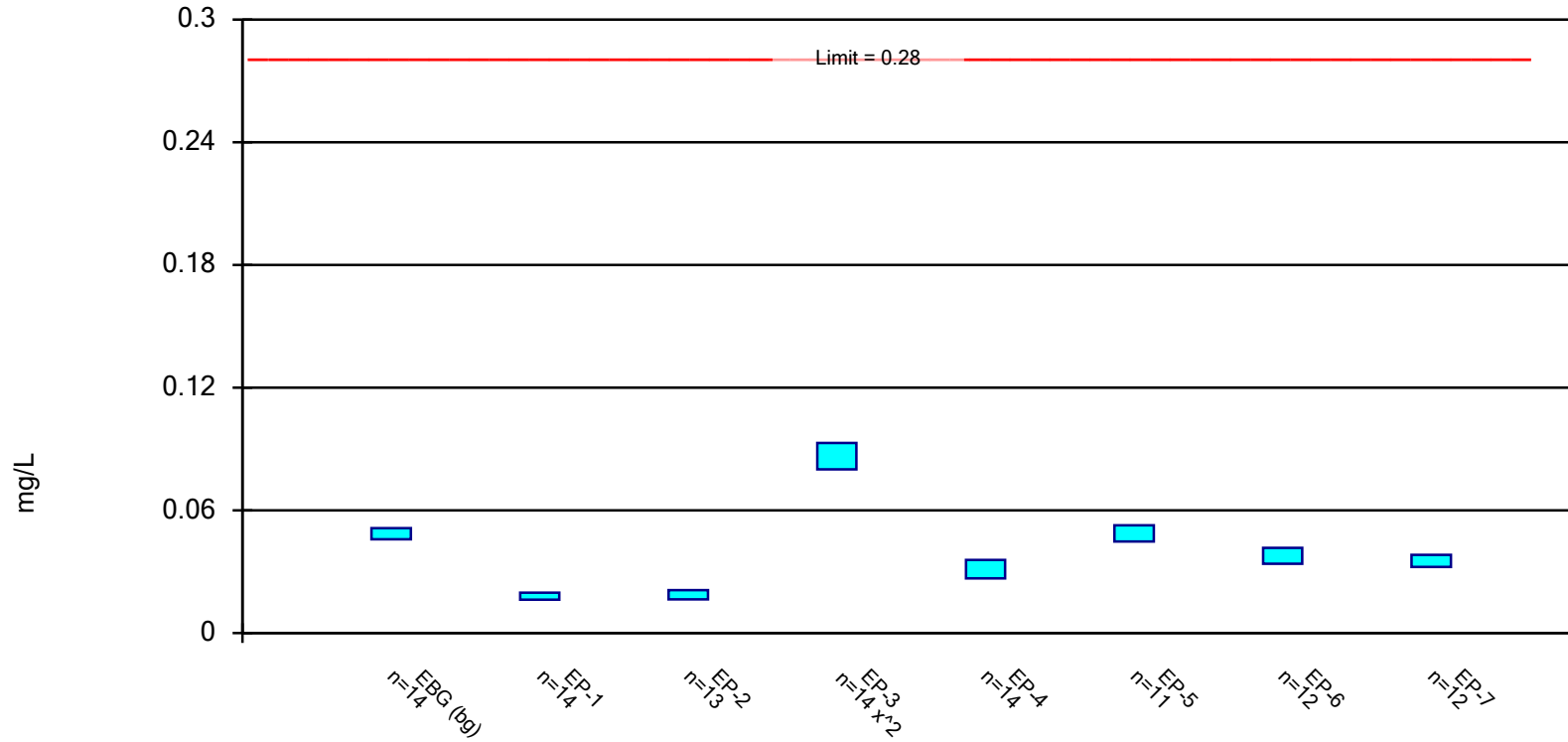


Constituent: Arsenic Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



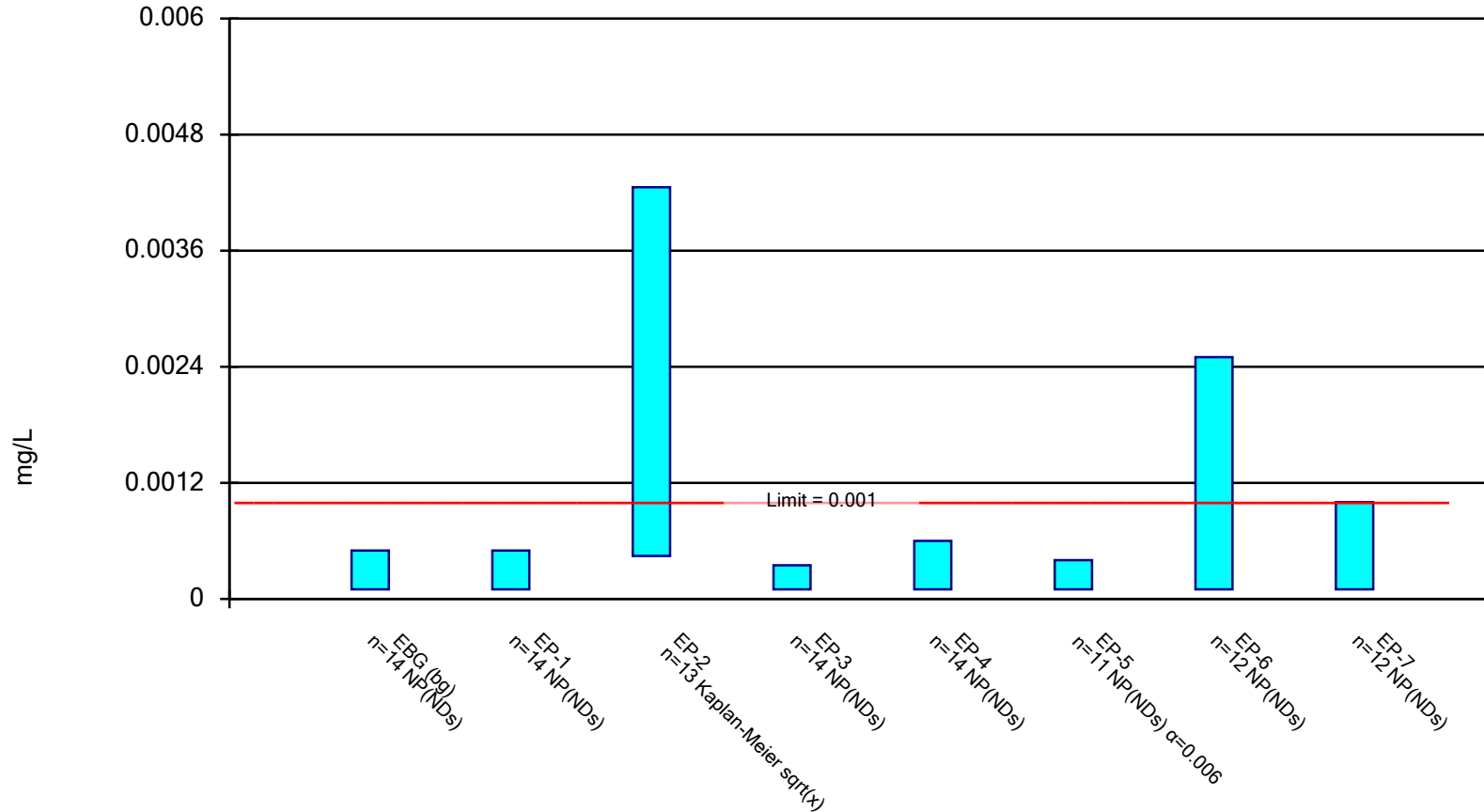
Constituent: Barium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

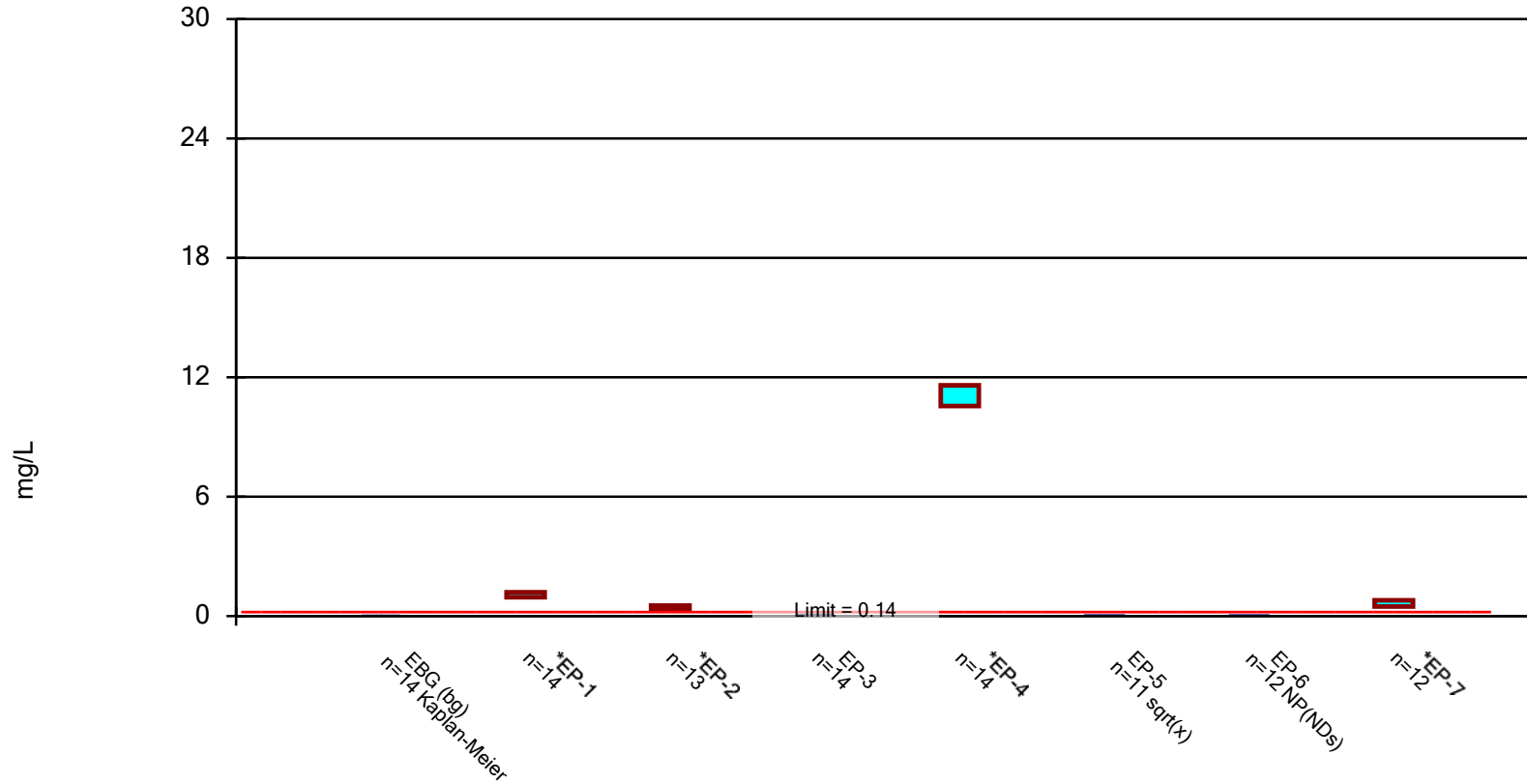


Constituent: Beryllium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

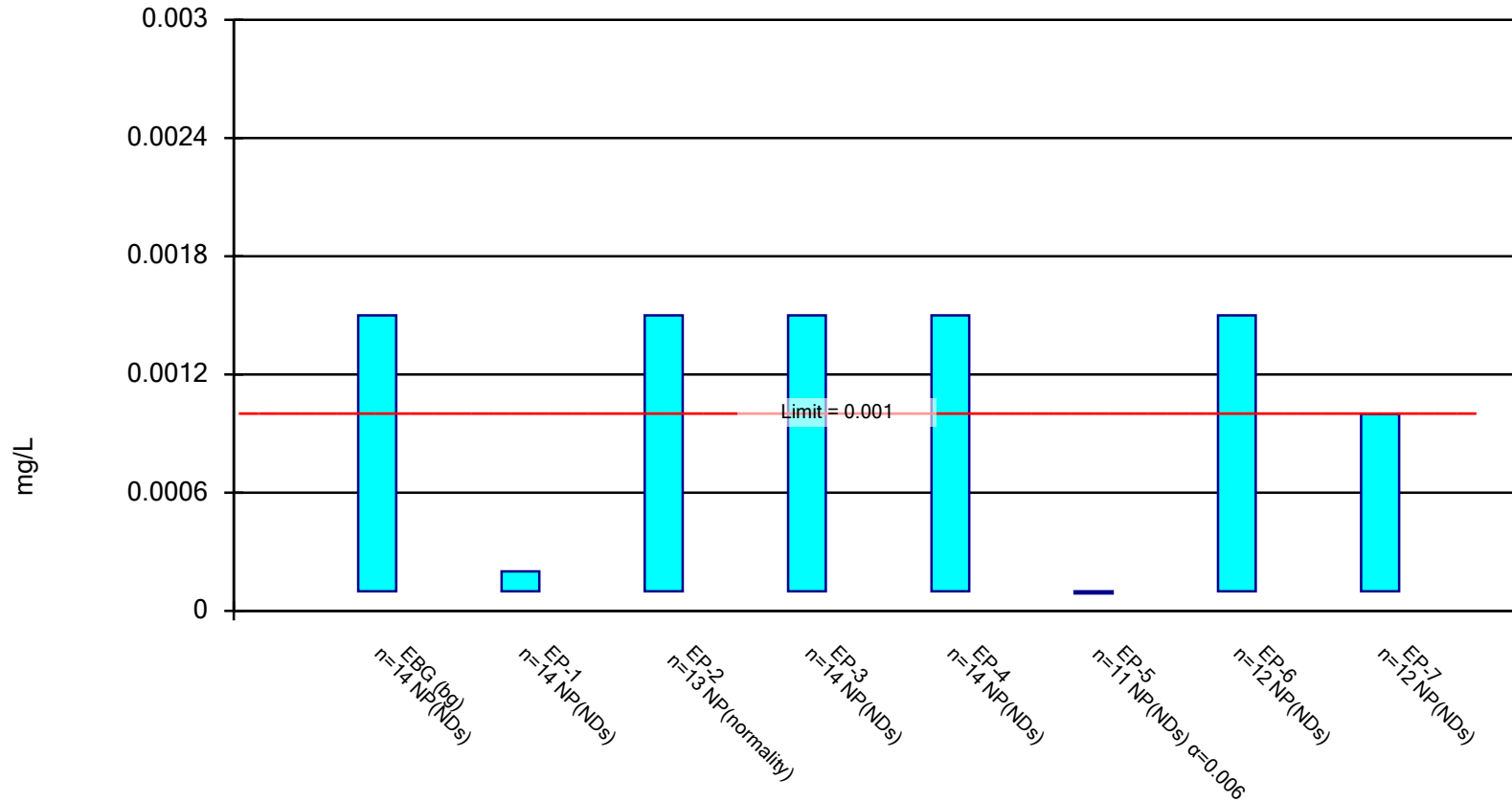


Constituent: Boron Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

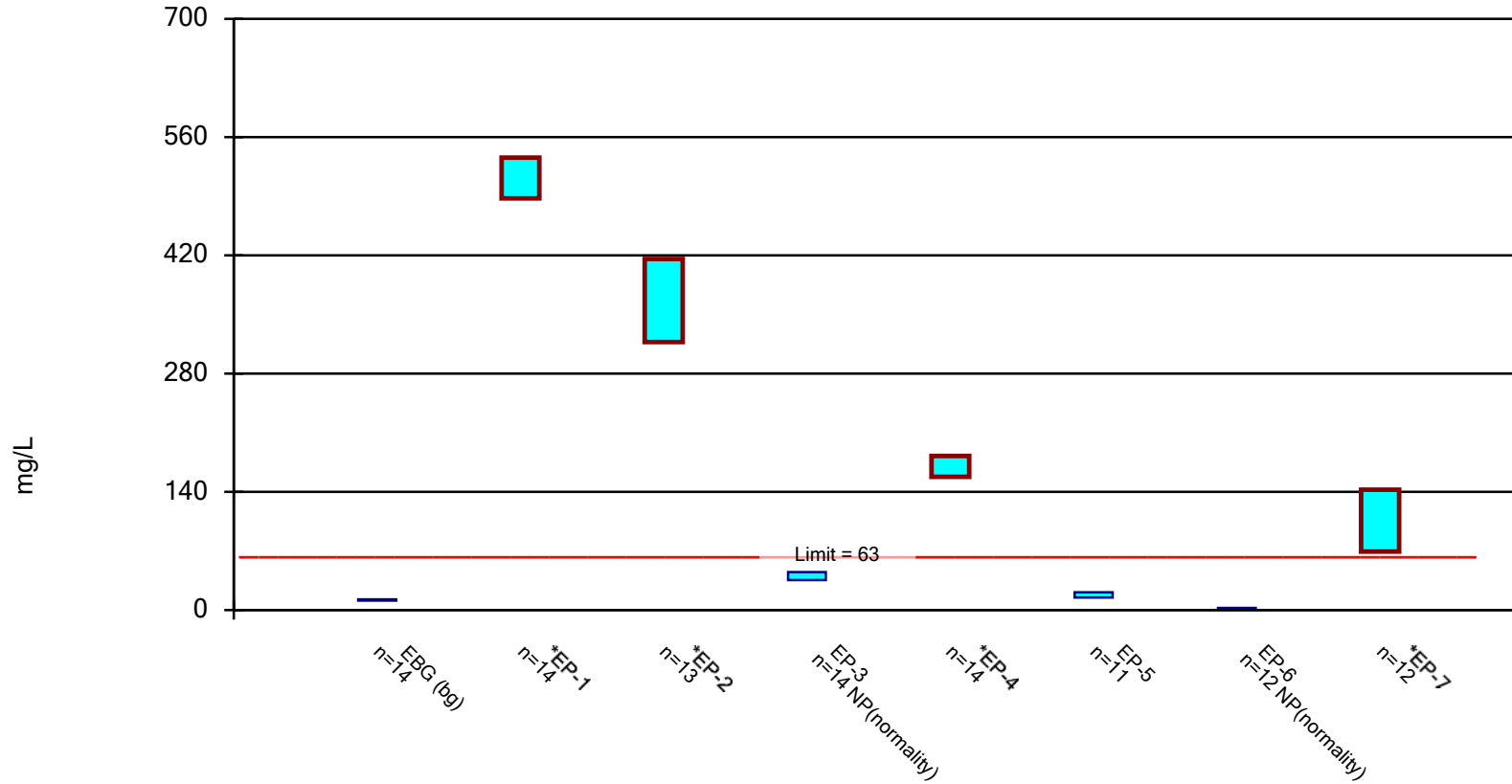


Constituent: Cadmium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

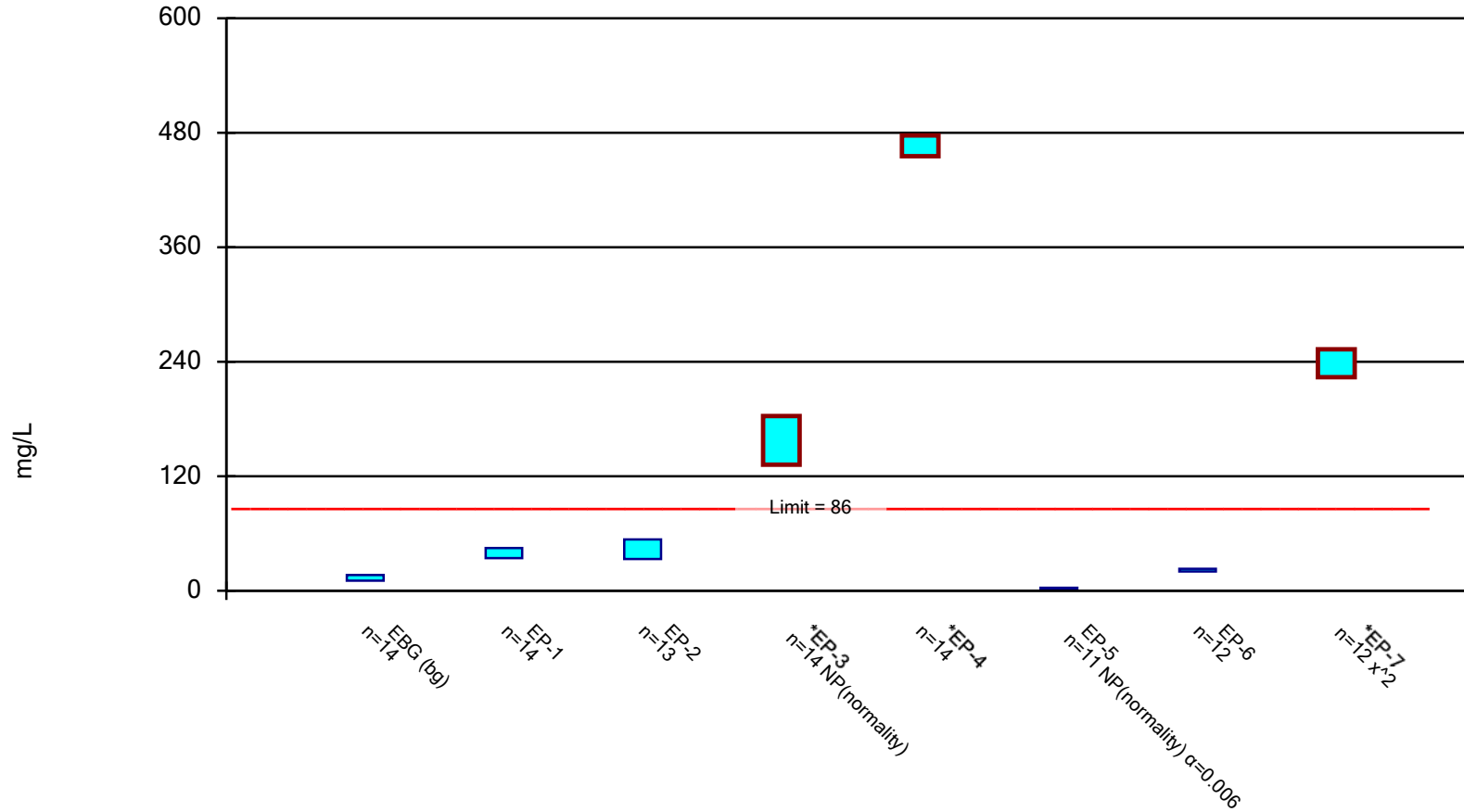


Constituent: Calcium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

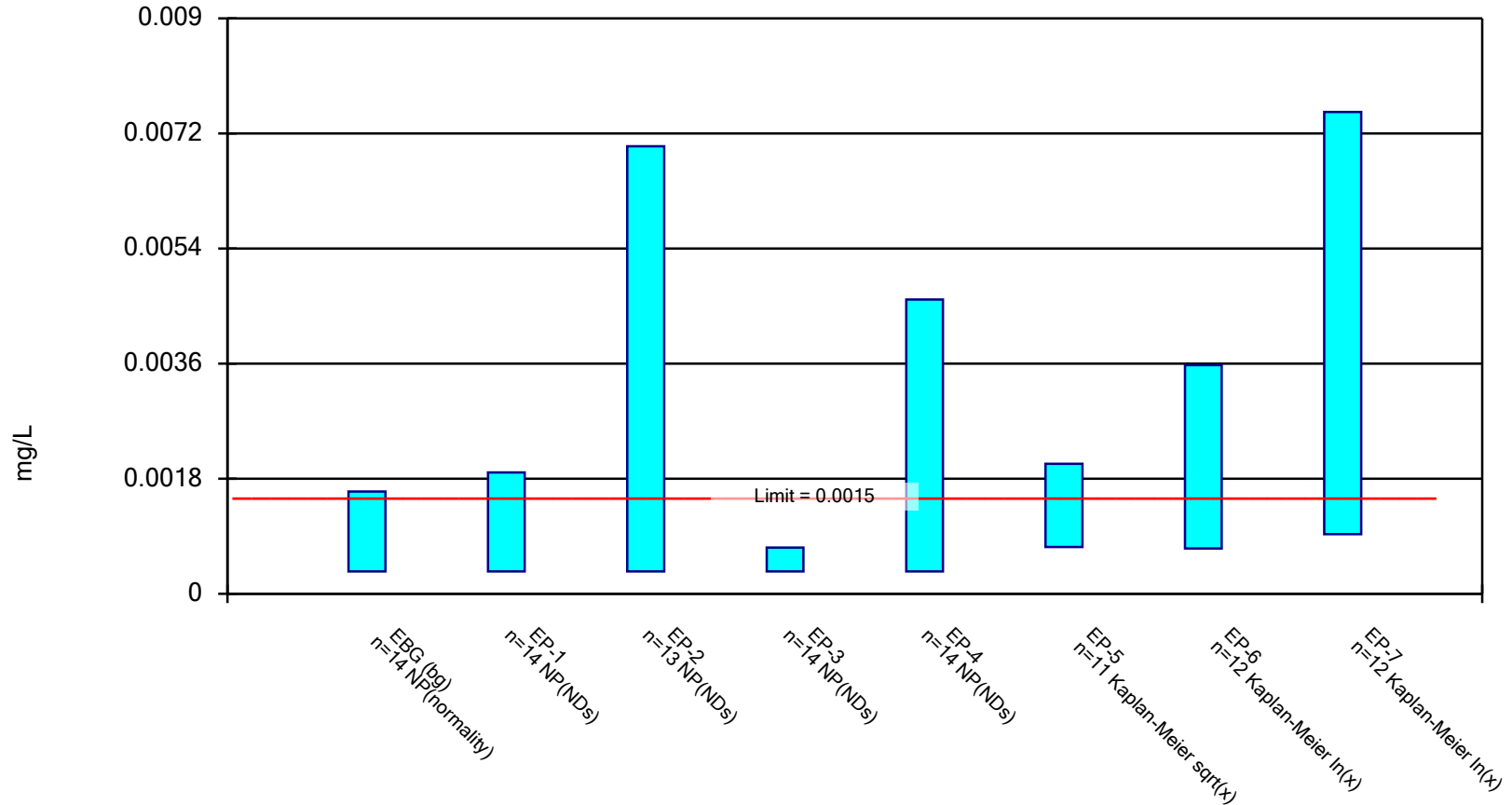


Constituent: Chloride Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

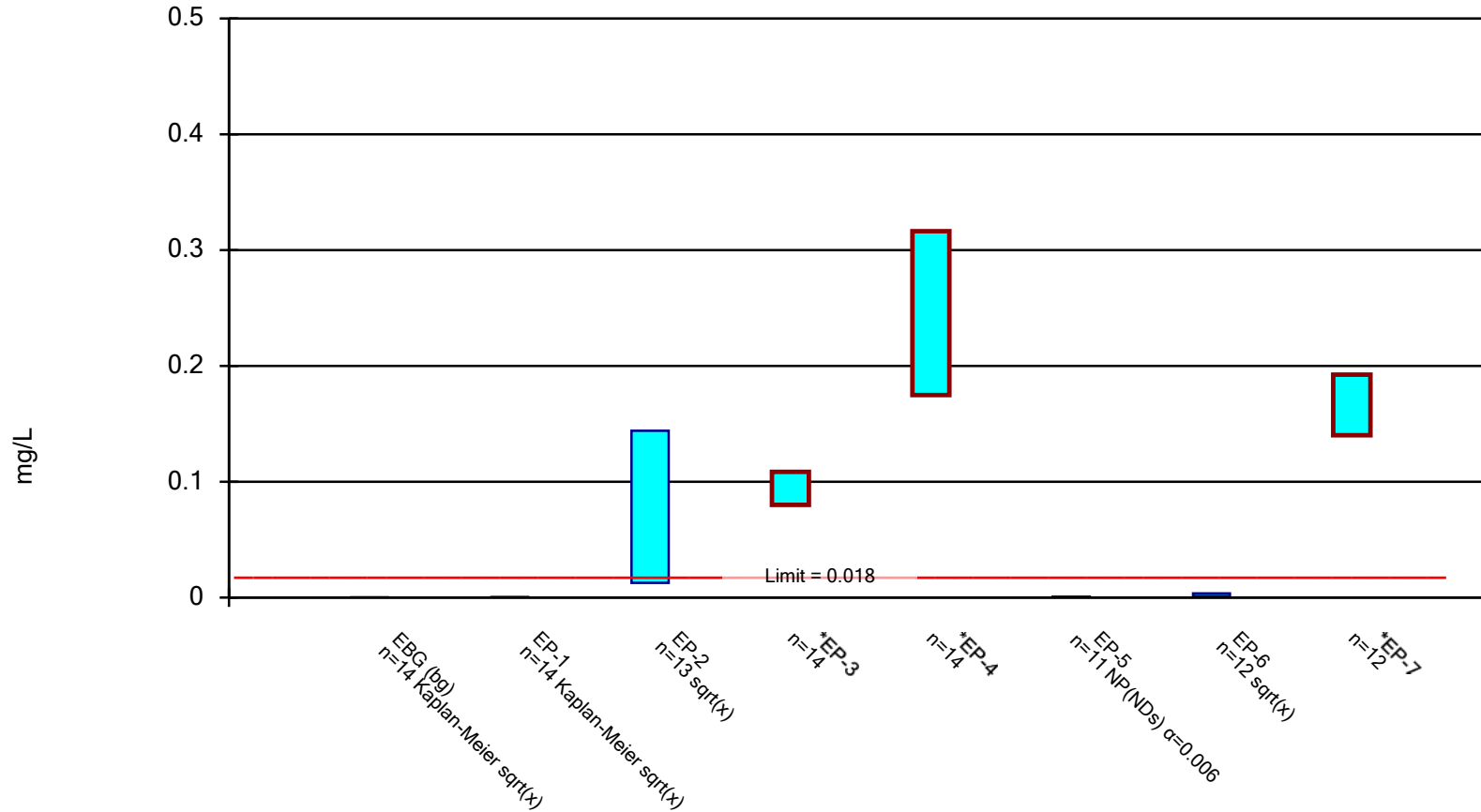


Constituent: Chromium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

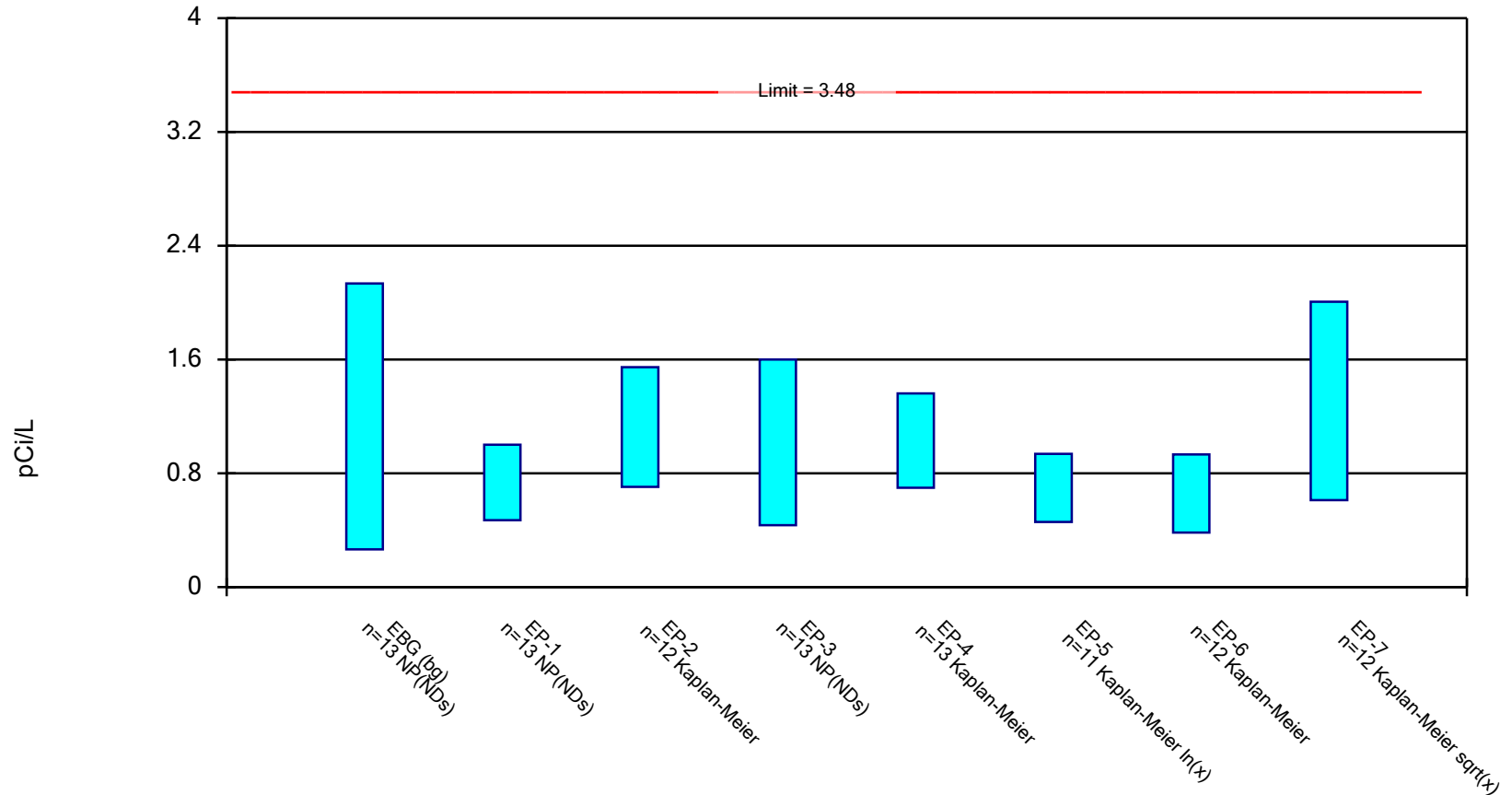


Constituent: Cobalt Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

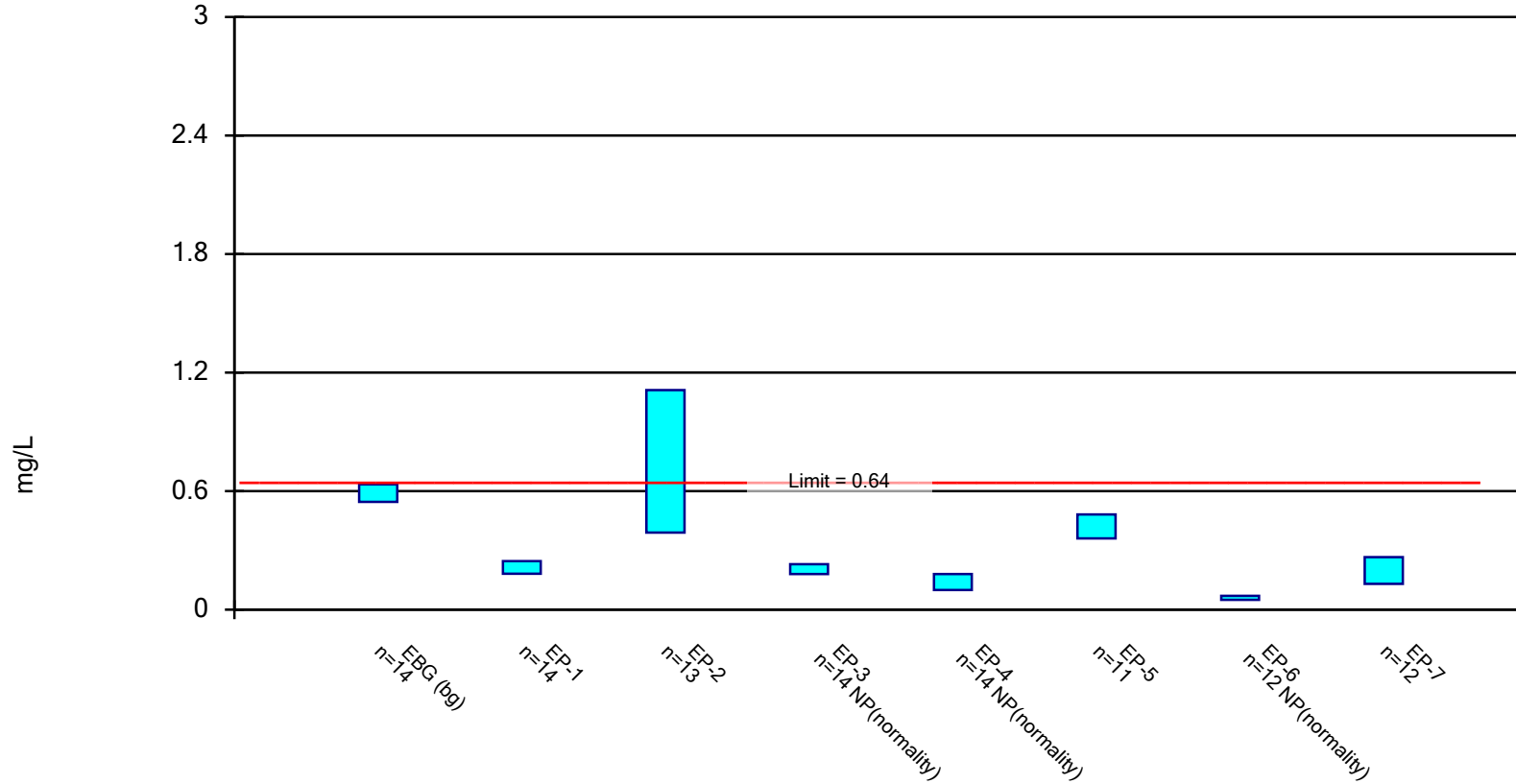


Constituent: Combined Radium    Analysis Run 10/17/2024 5:01 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

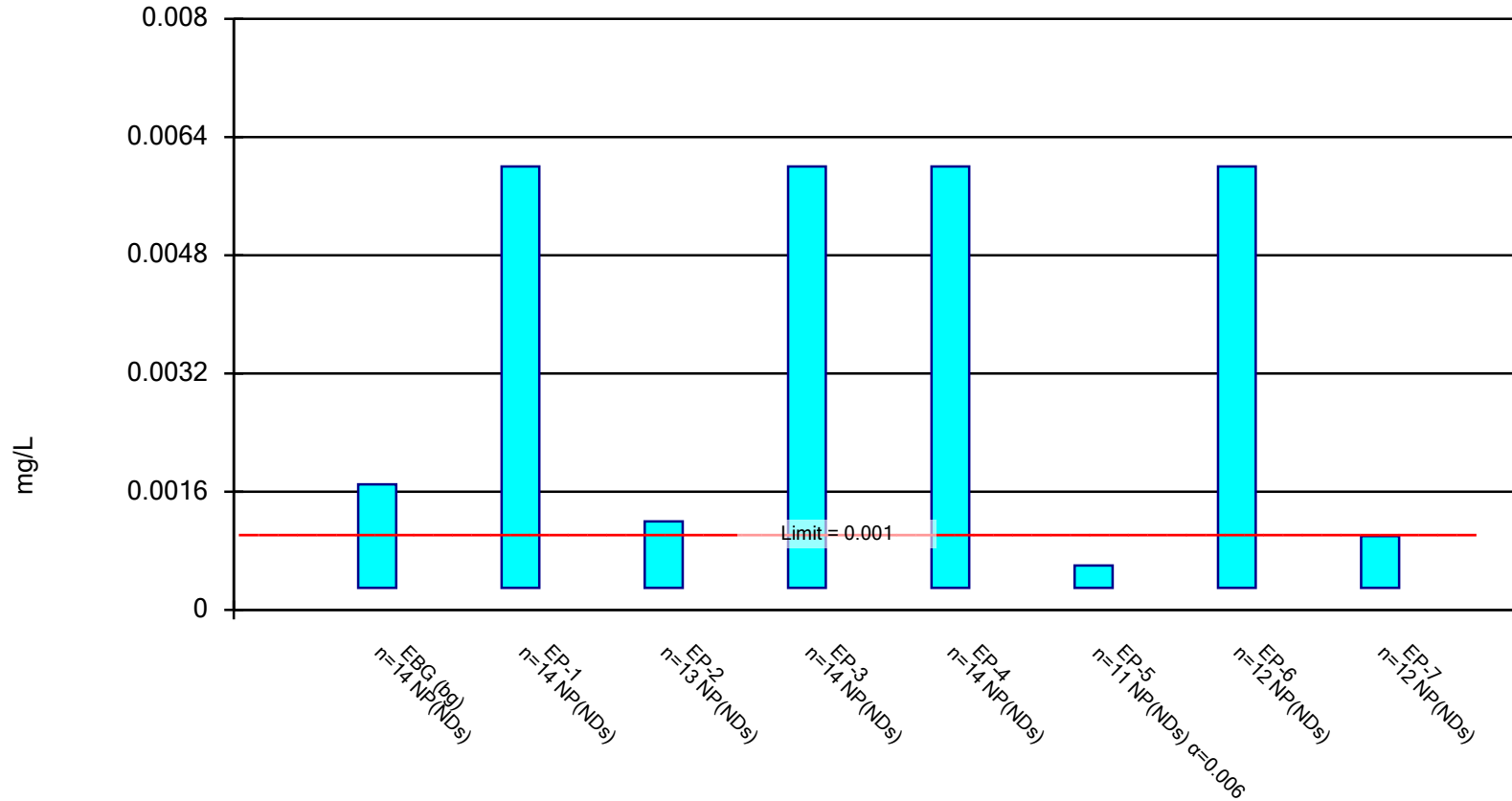


Constituent: Fluoride Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

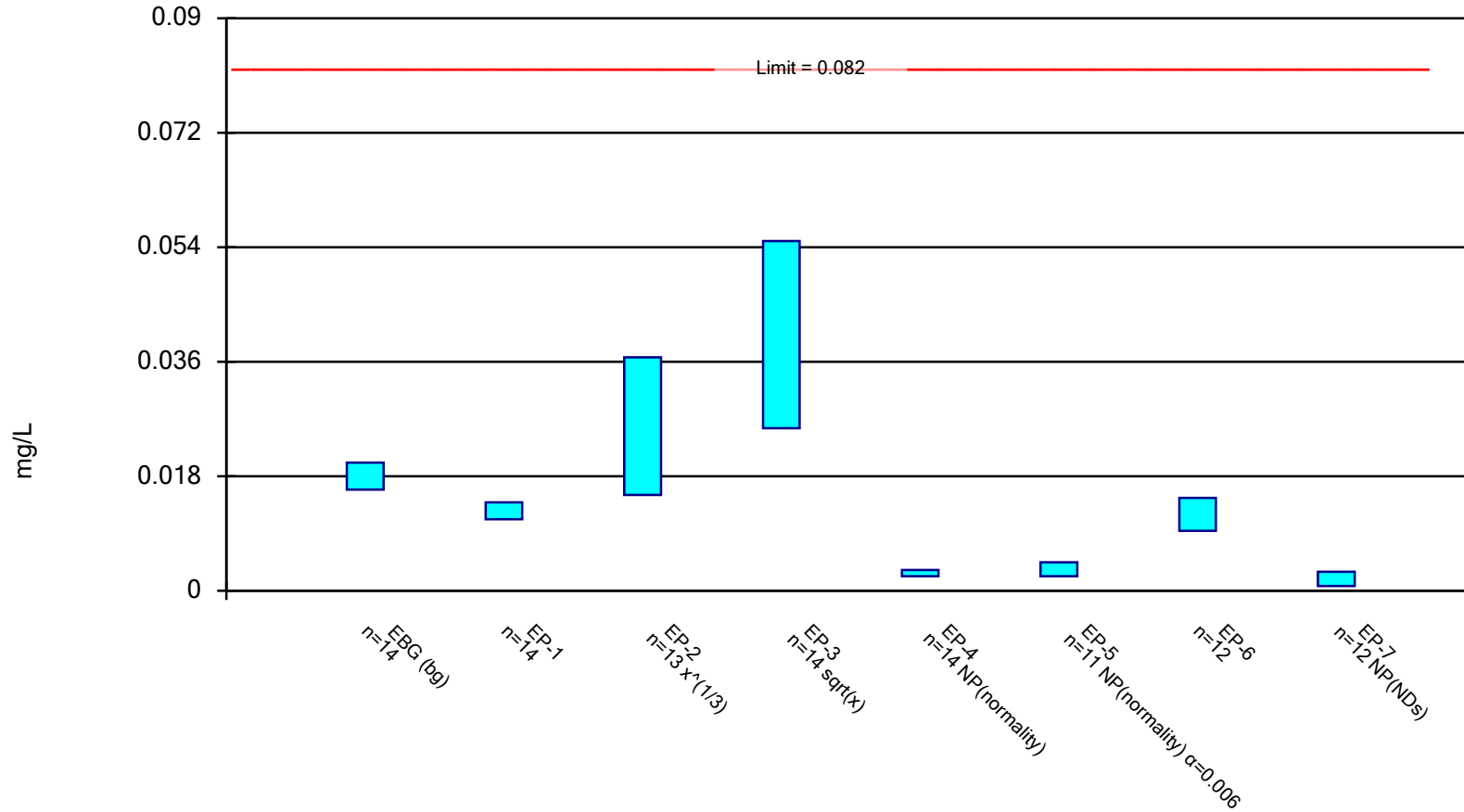


Constituent: Lead Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

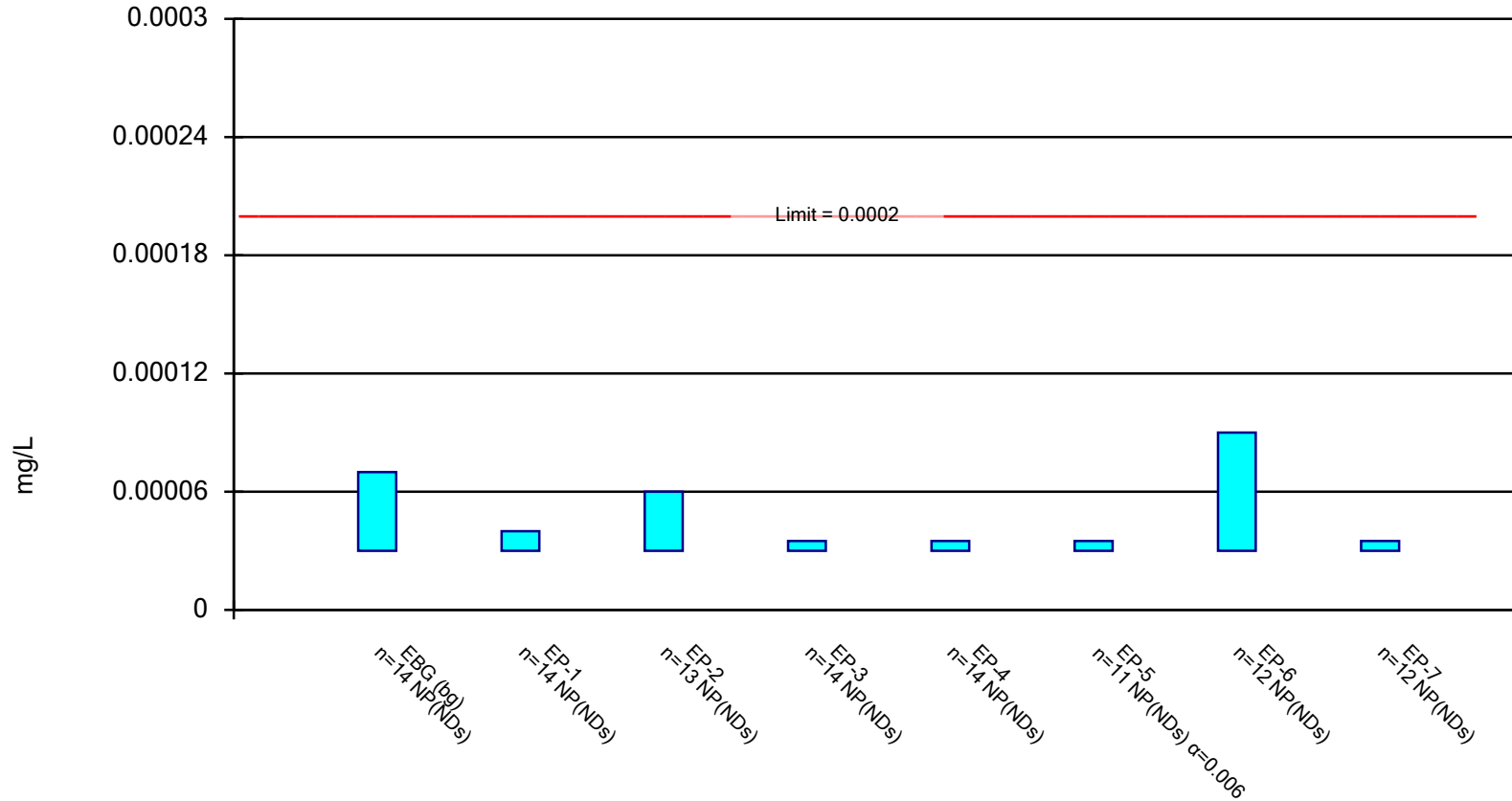


Constituent: Lithium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

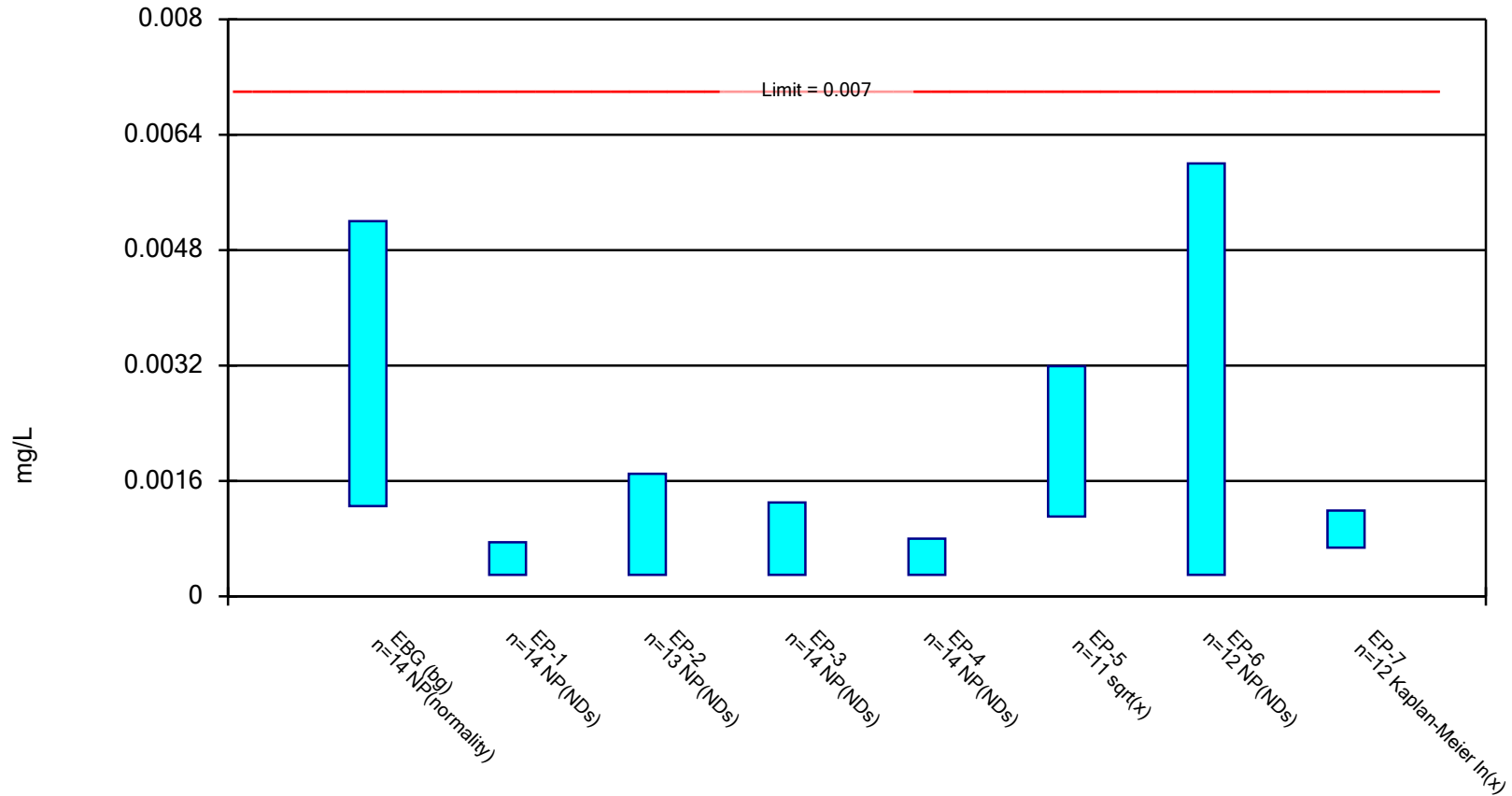


Constituent: Mercury Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

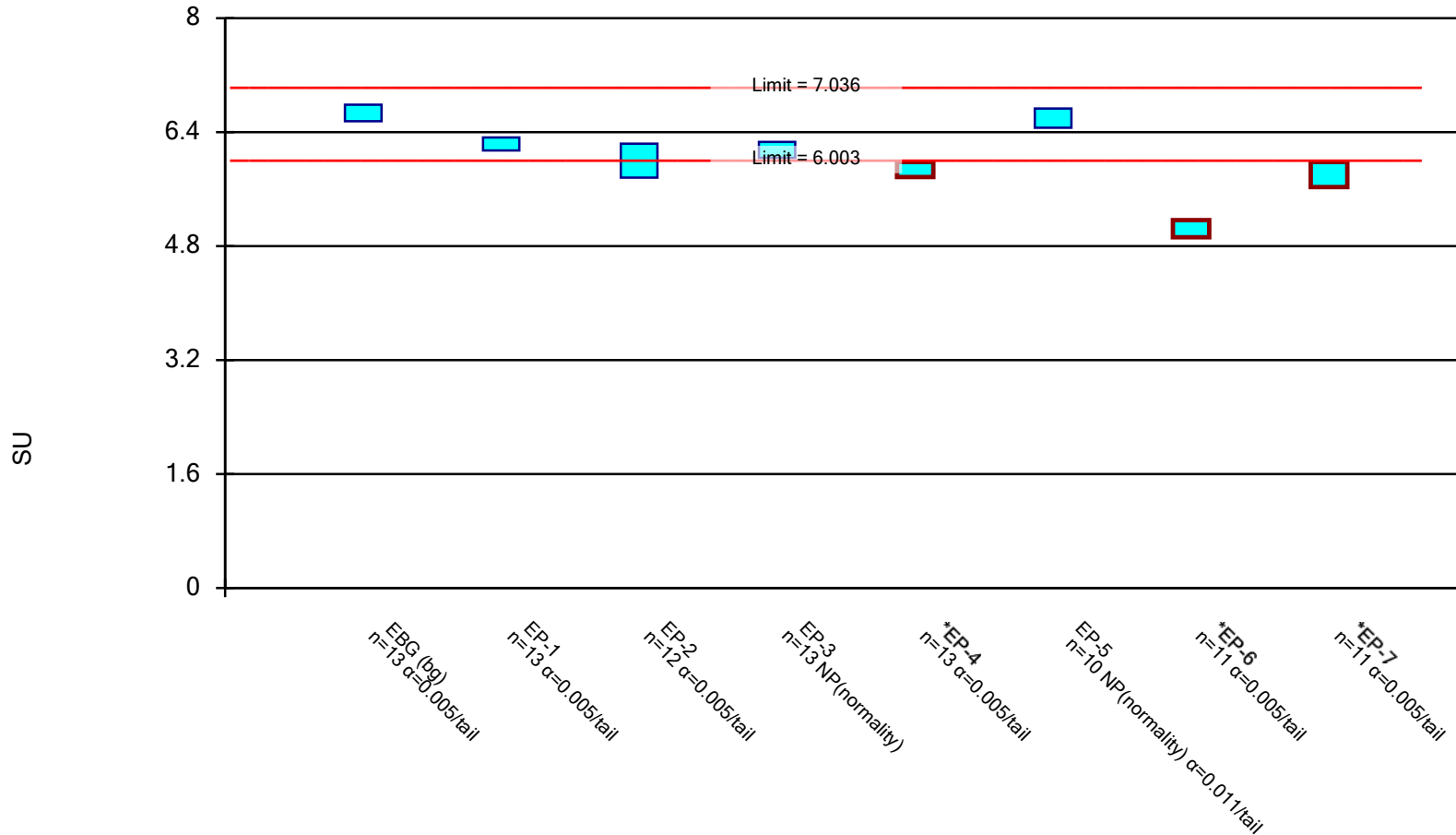


Constituent: Molybdenum Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

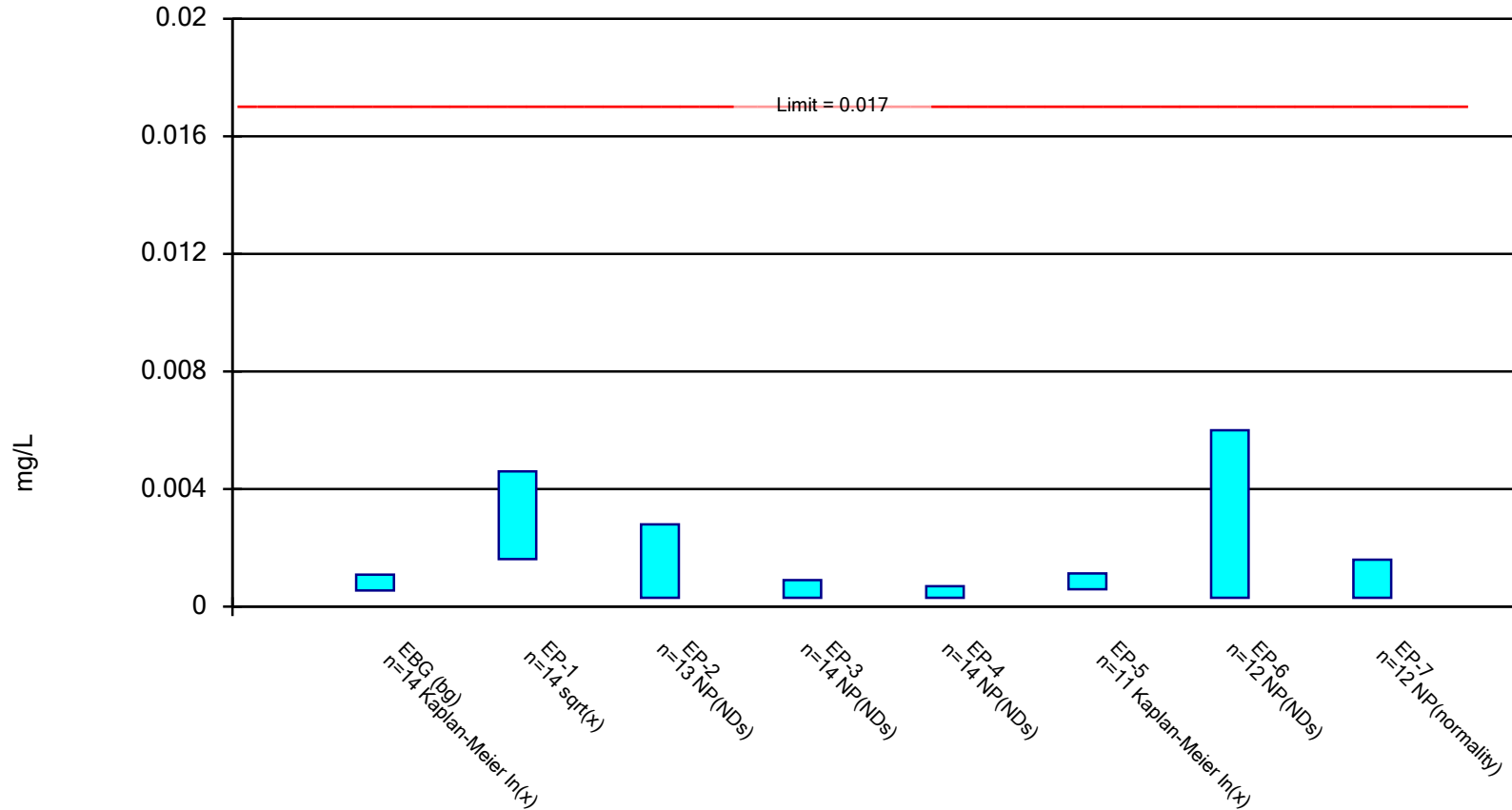


Constituent: pH Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

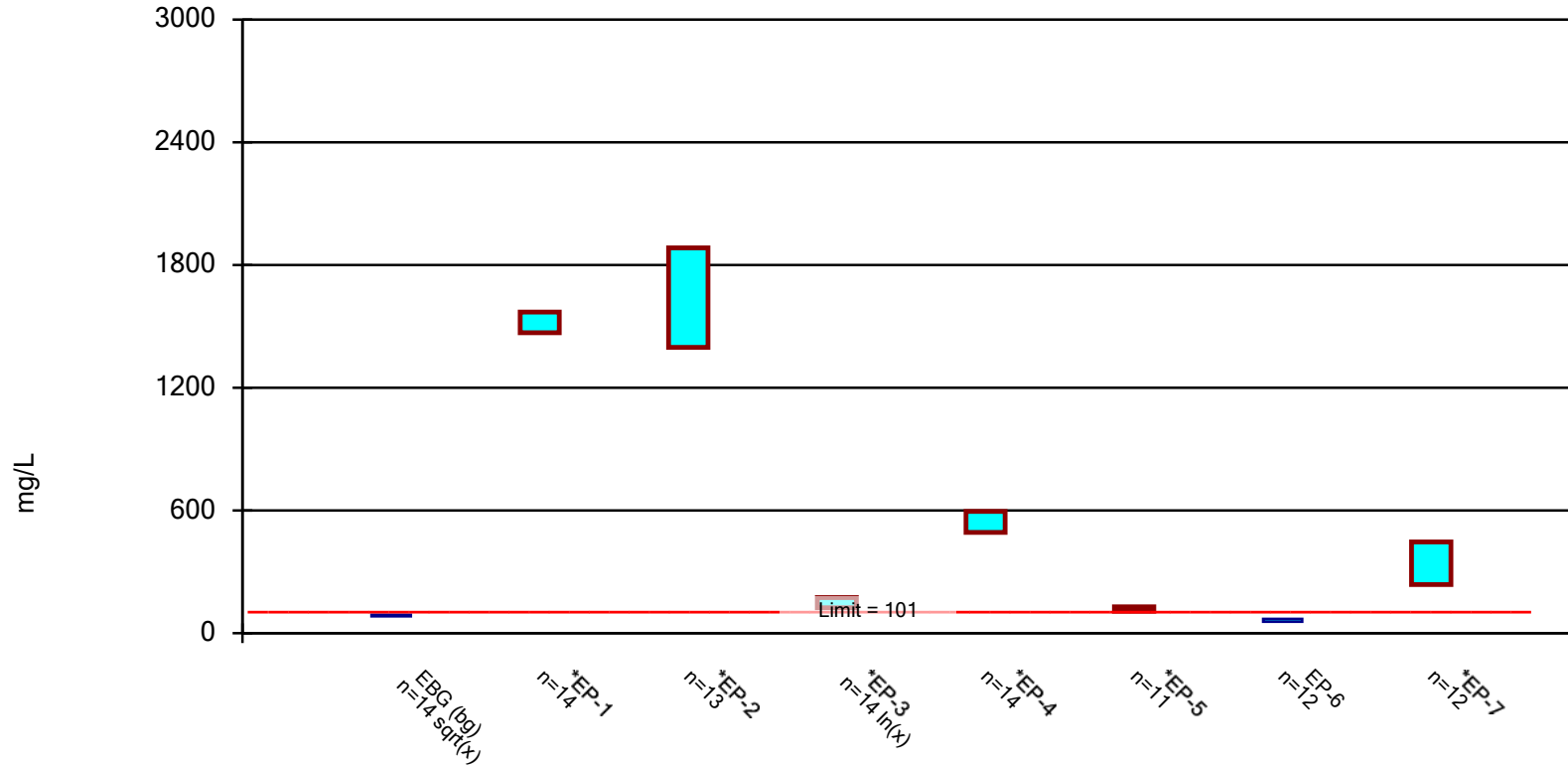


Constituent: Selenium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Parametric Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



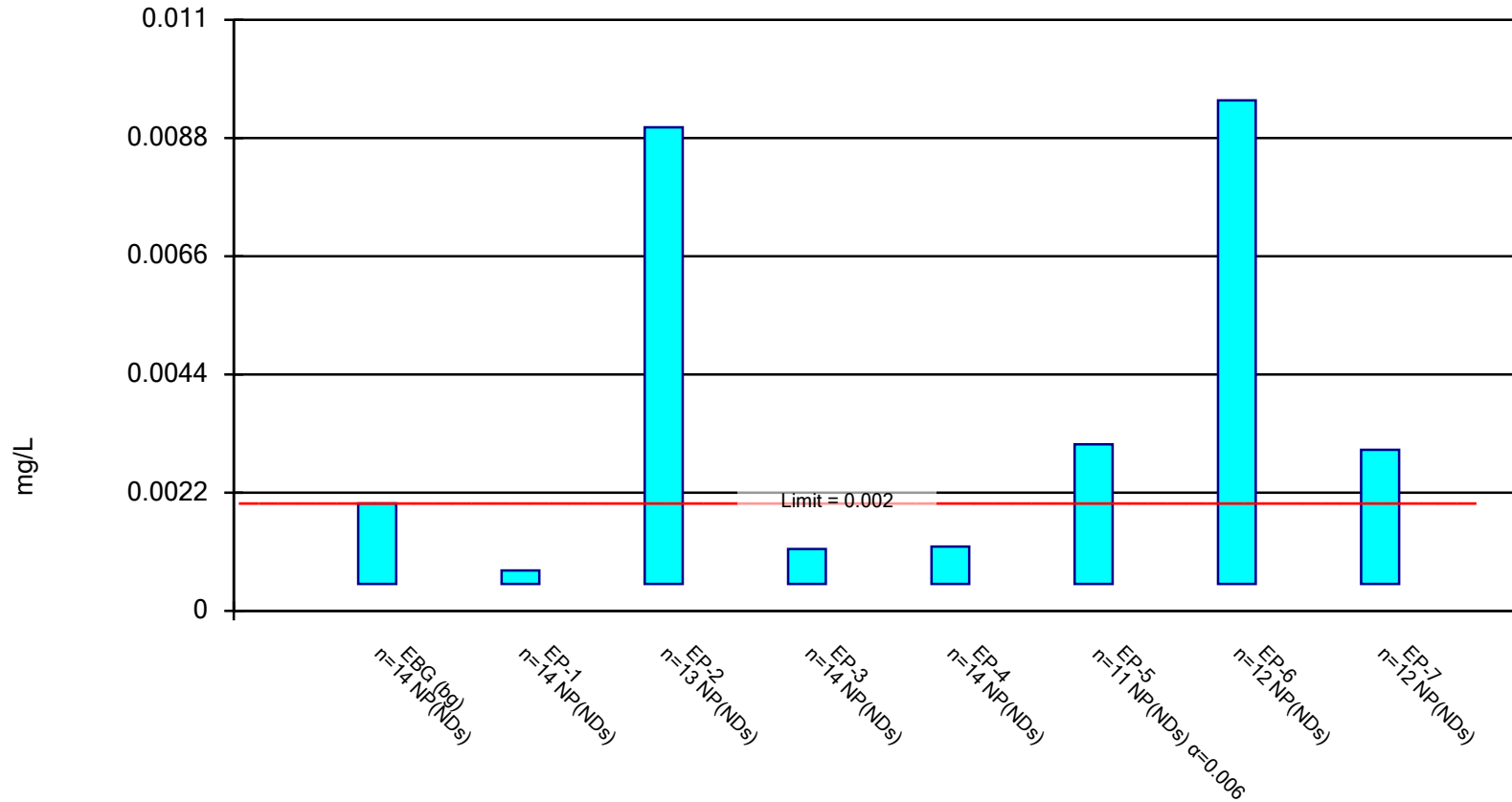
Constituent: Sulfate Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

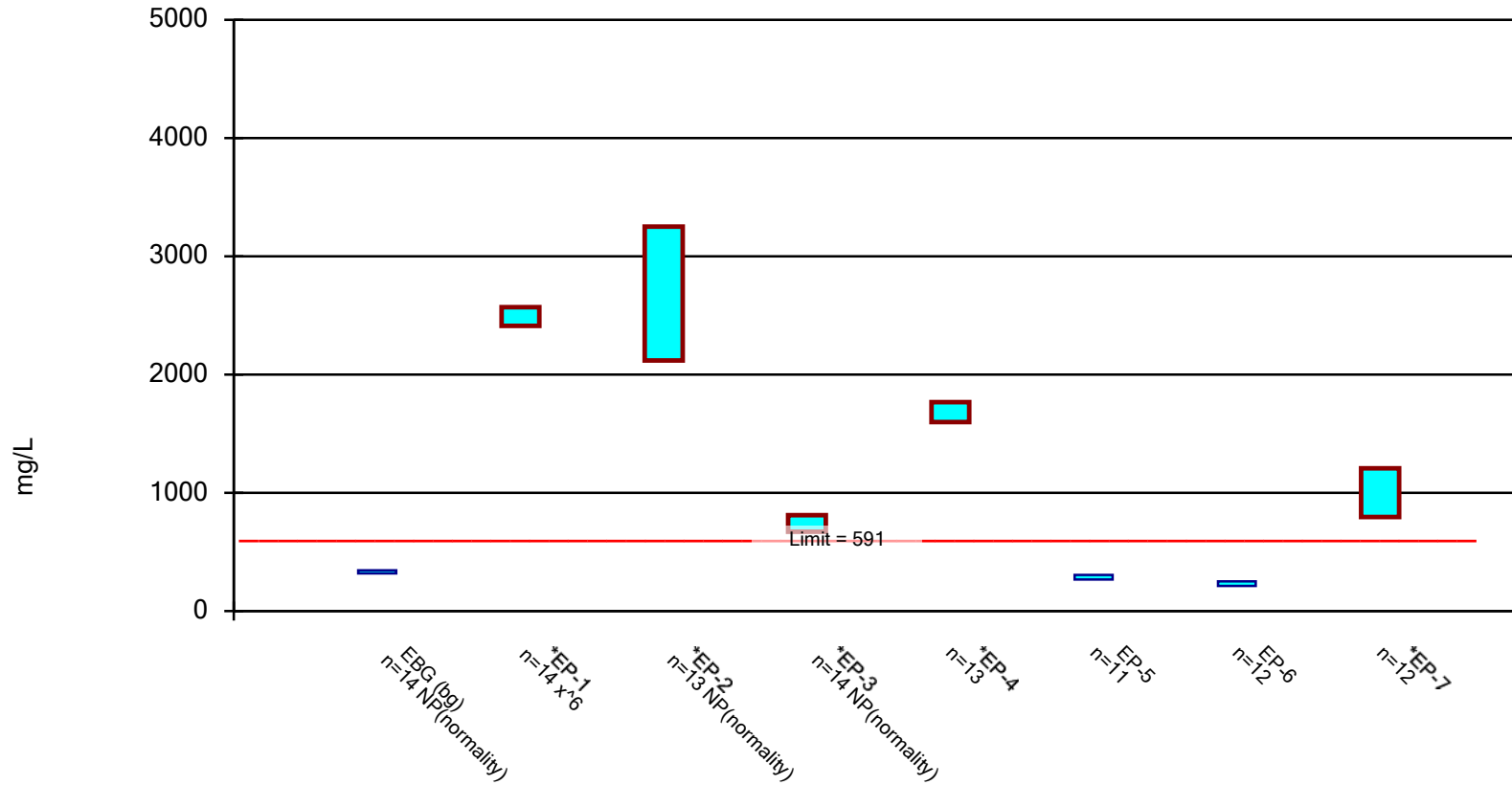


Constituent: Thallium Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



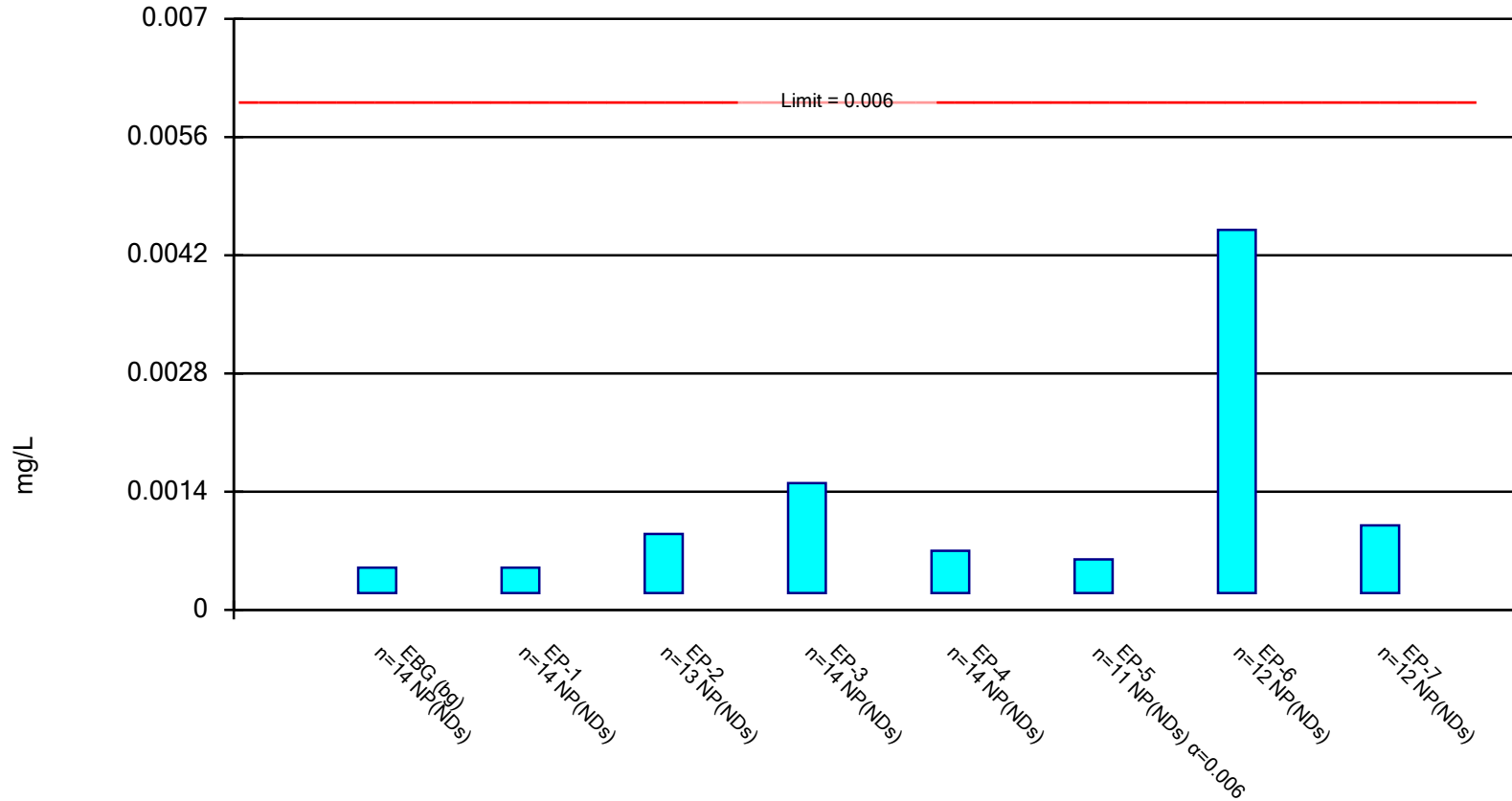
Constituent: Total Dissolved Solids Analysis Run 10/17/2024 5:01 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

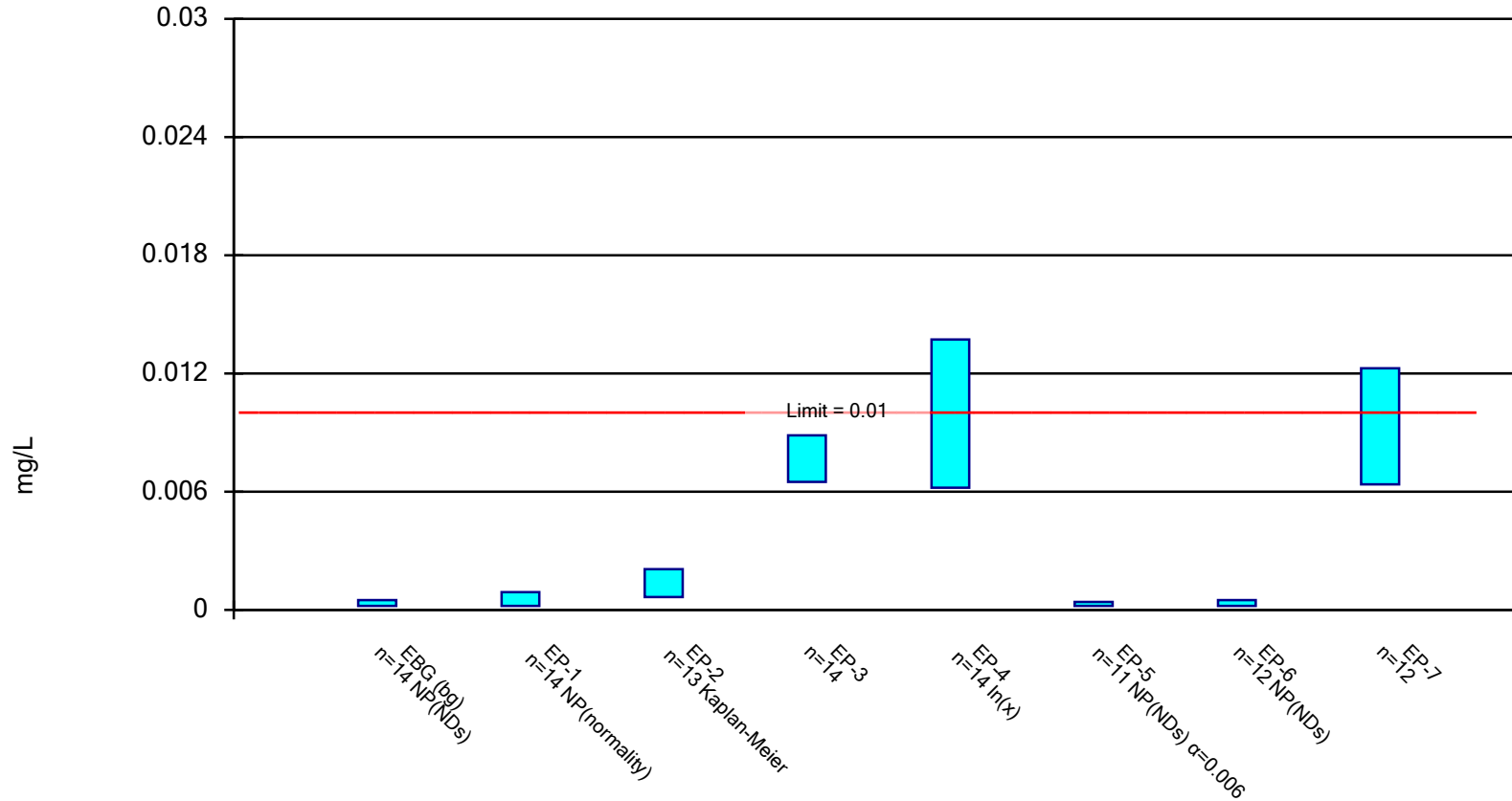


Constituent: Antimony Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

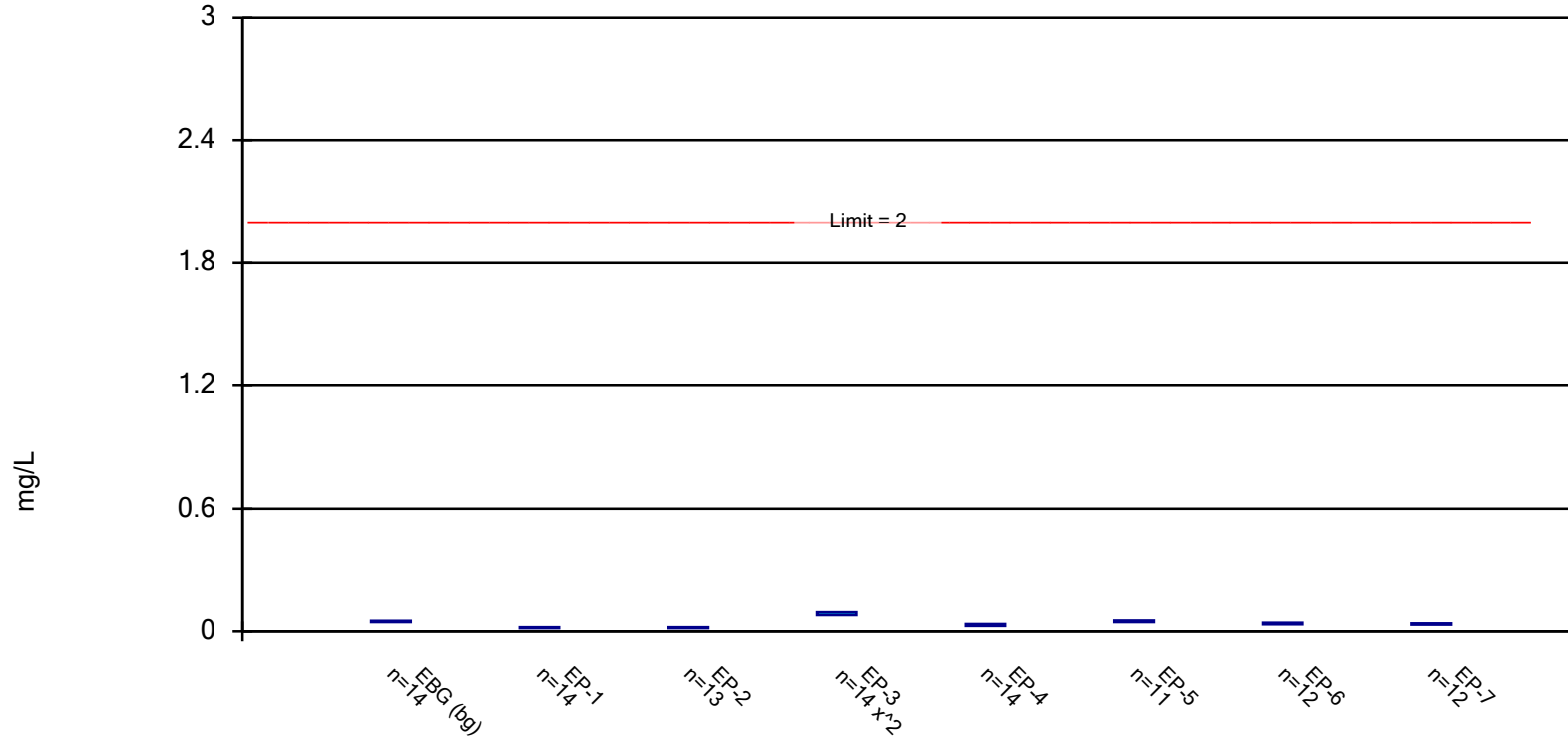


Constituent: Arsenic Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

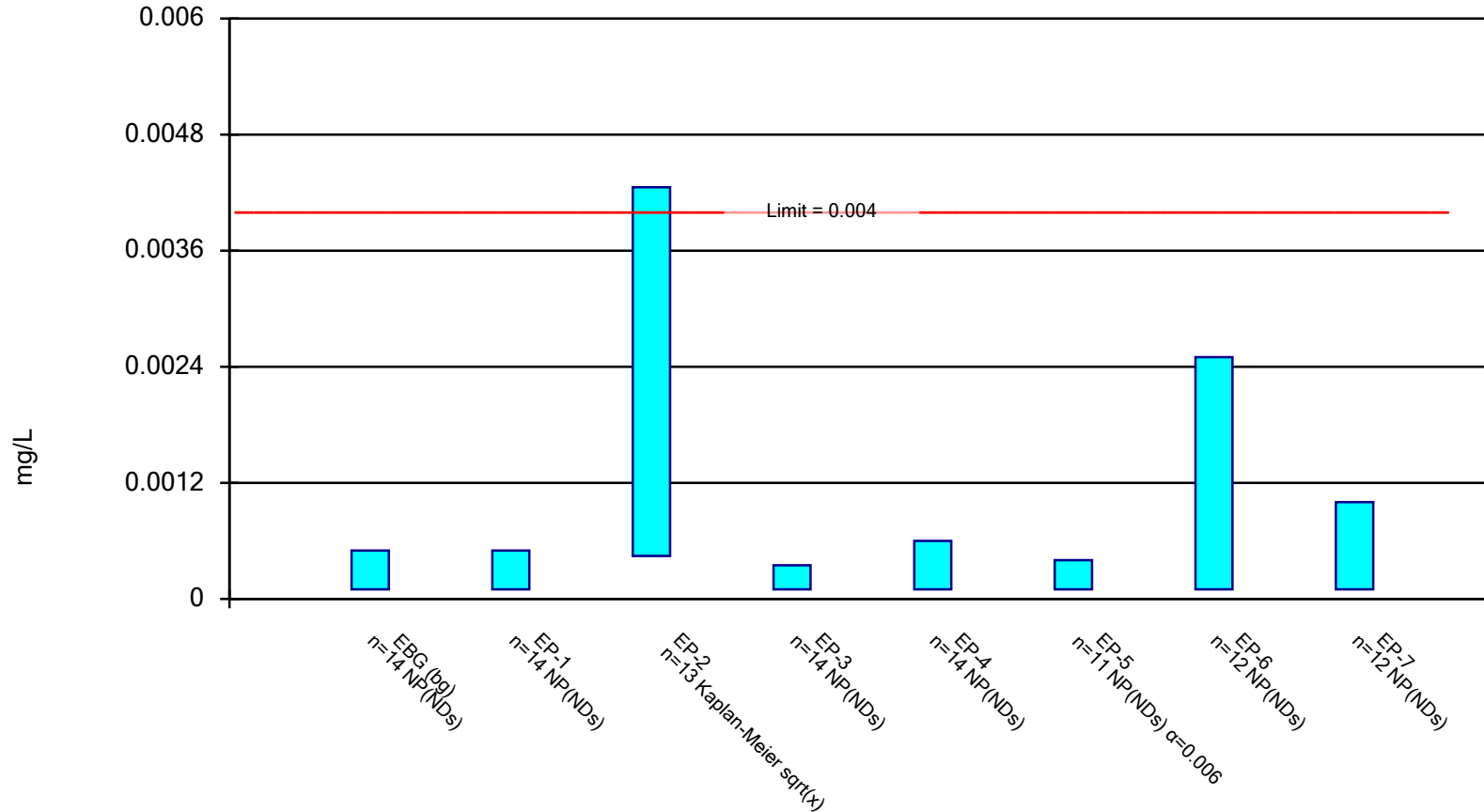


Constituent: Barium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

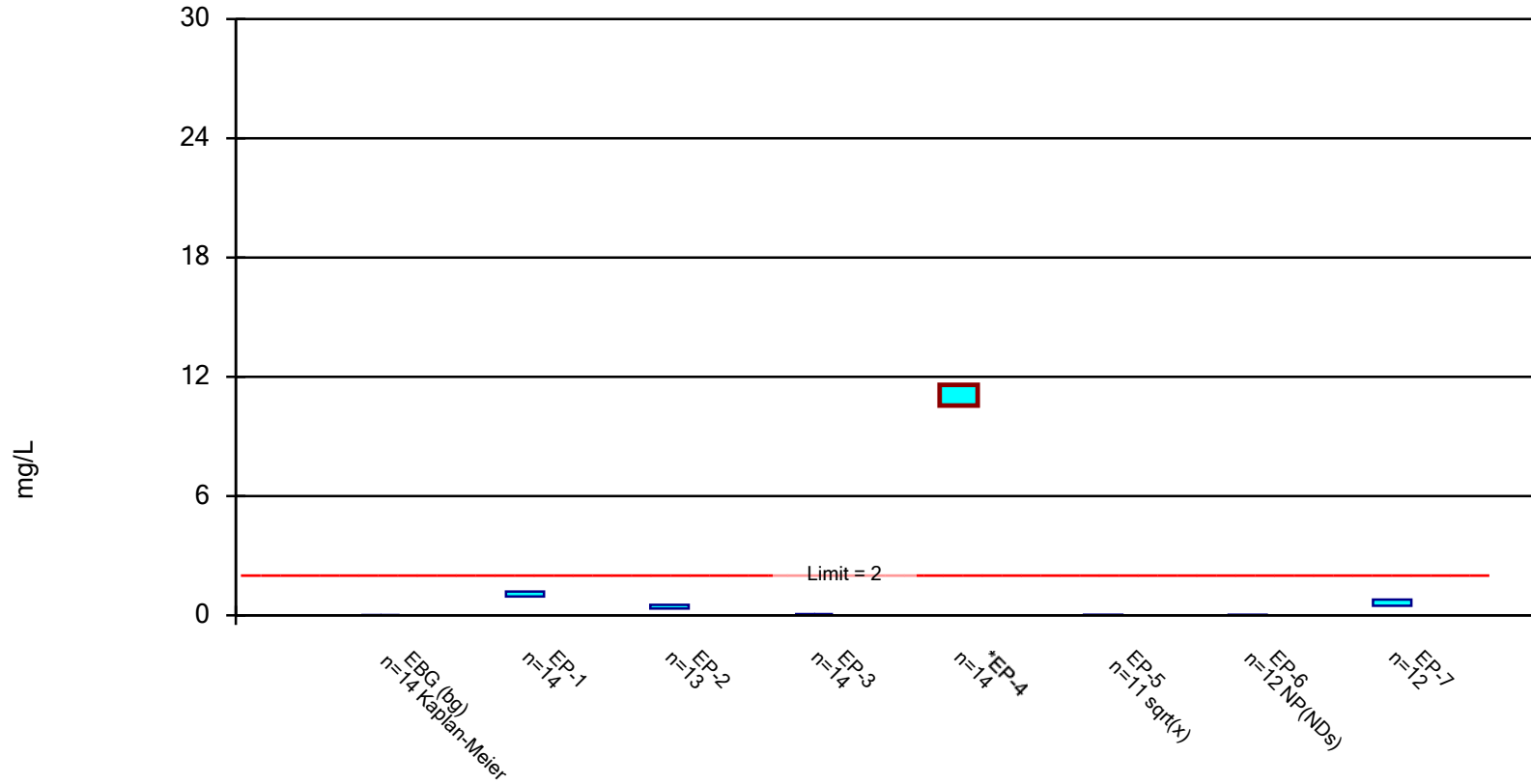


Constituent: Beryllium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



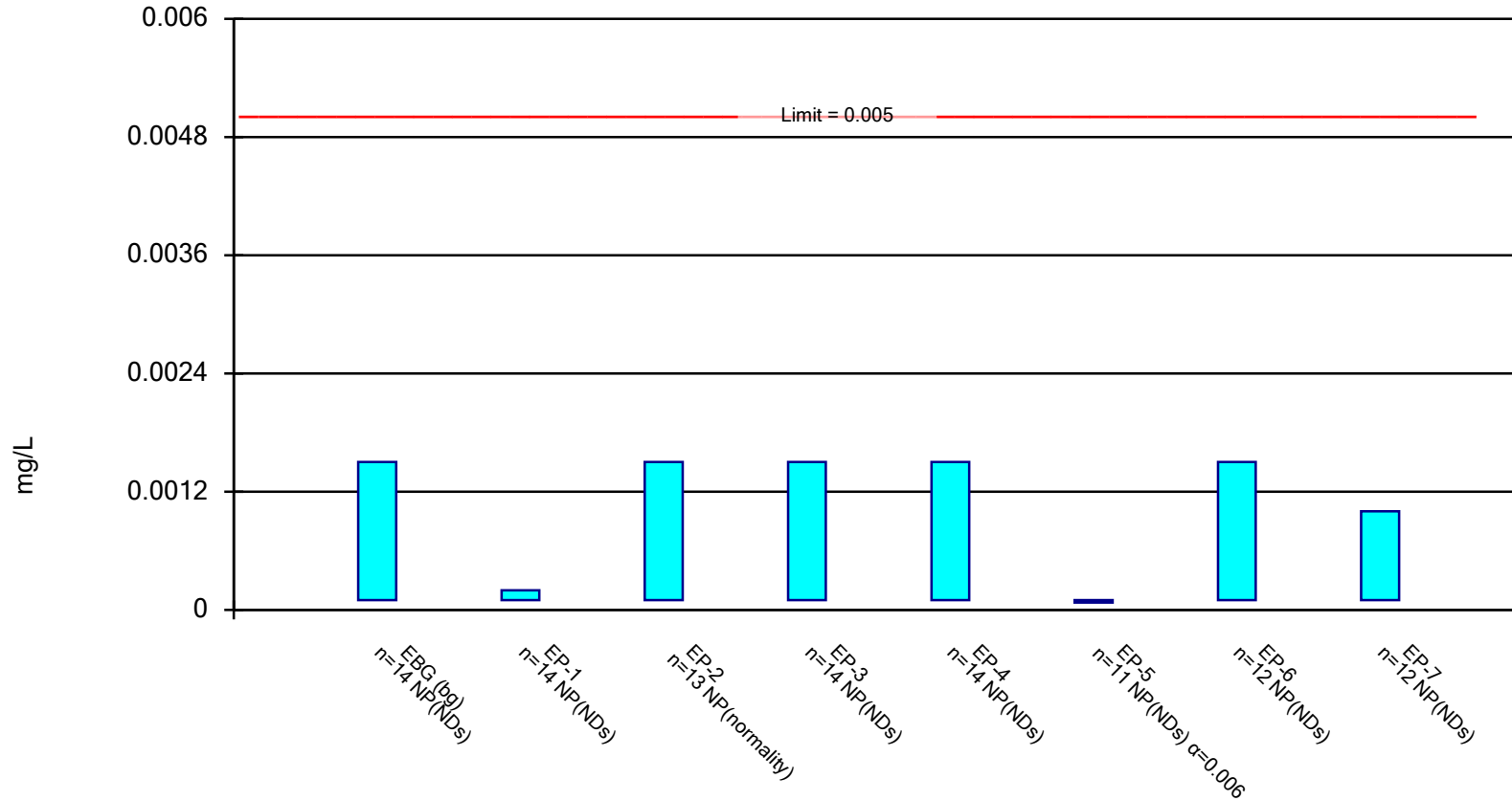
Constituent: Boron Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

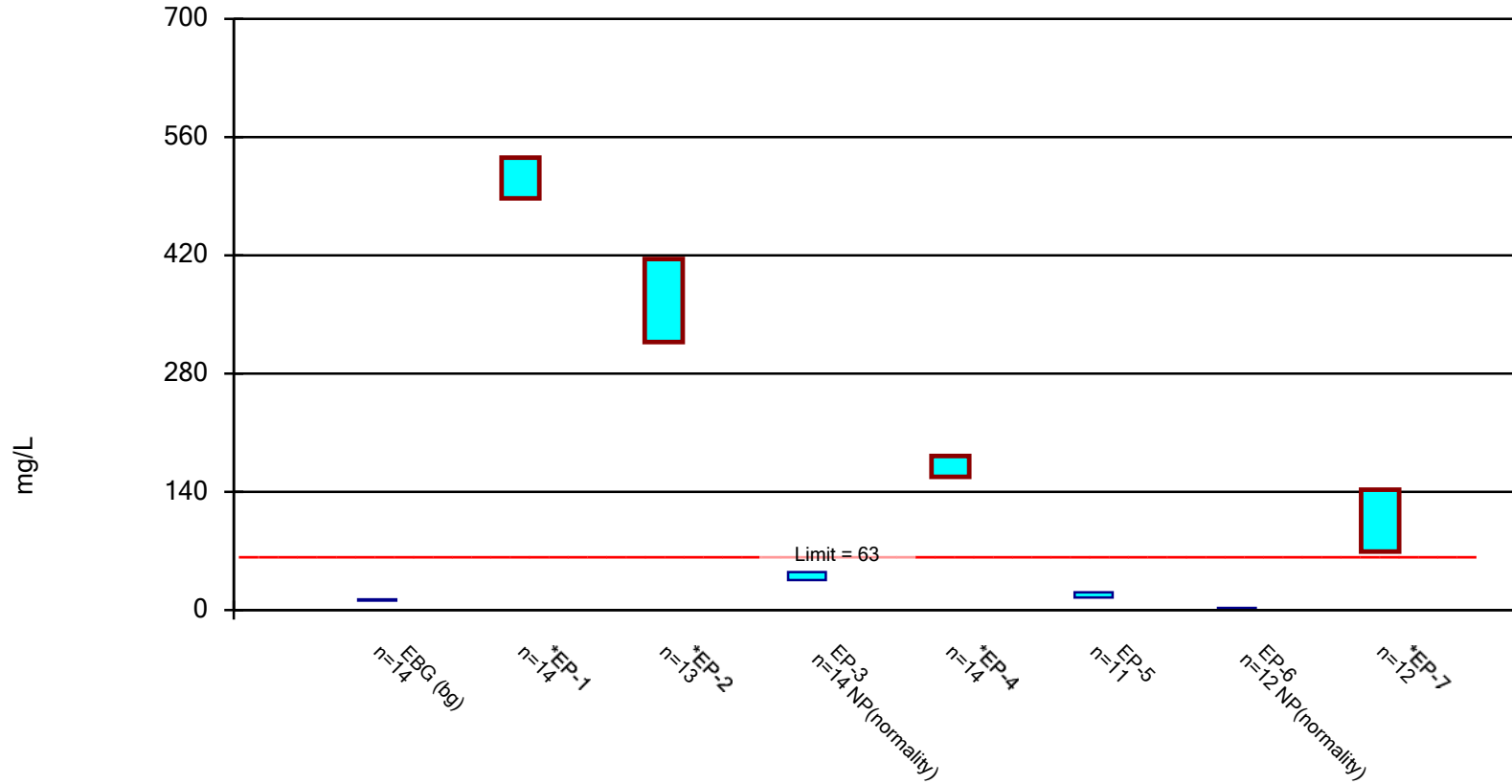


Constituent: Cadmium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

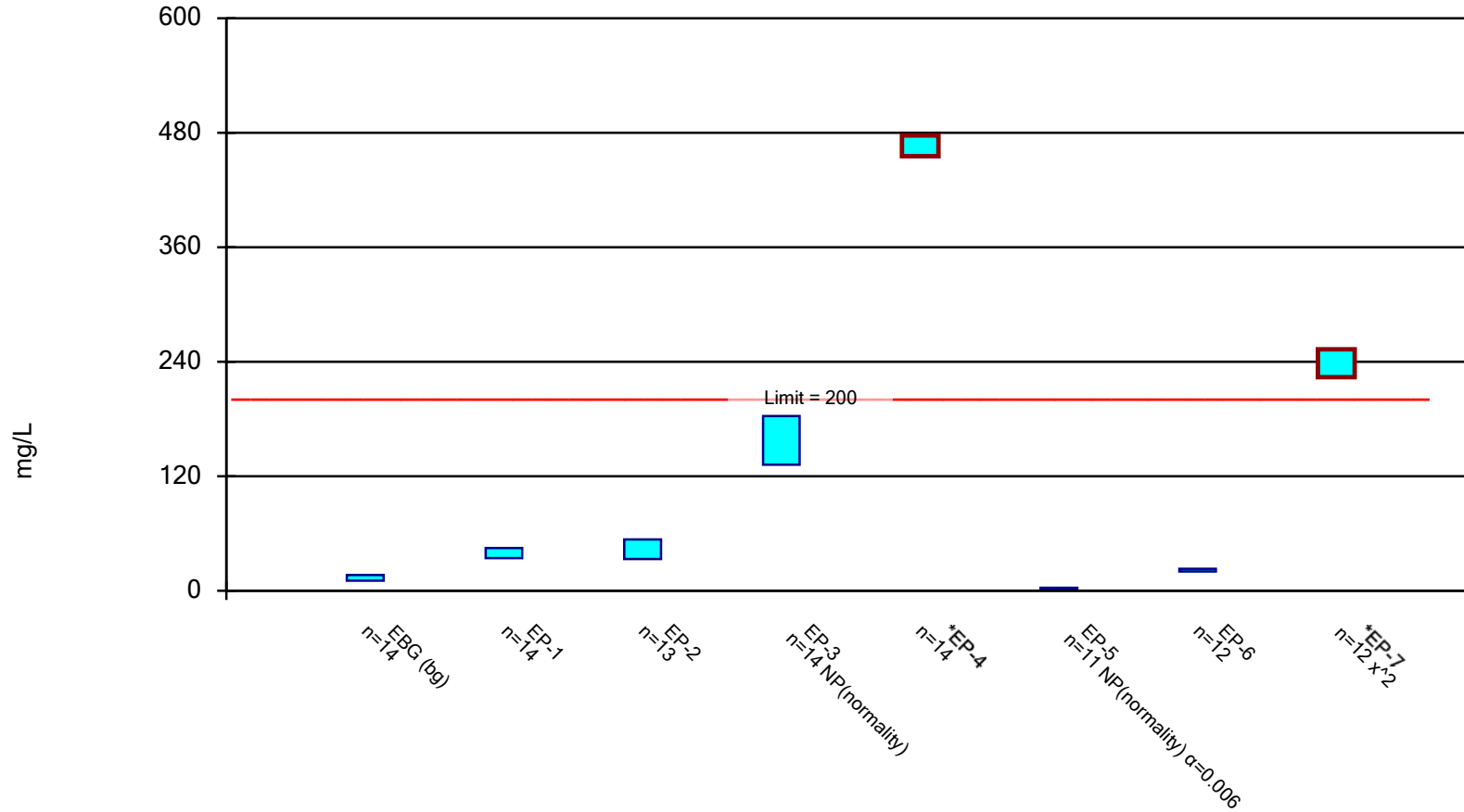


Constituent: Calcium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

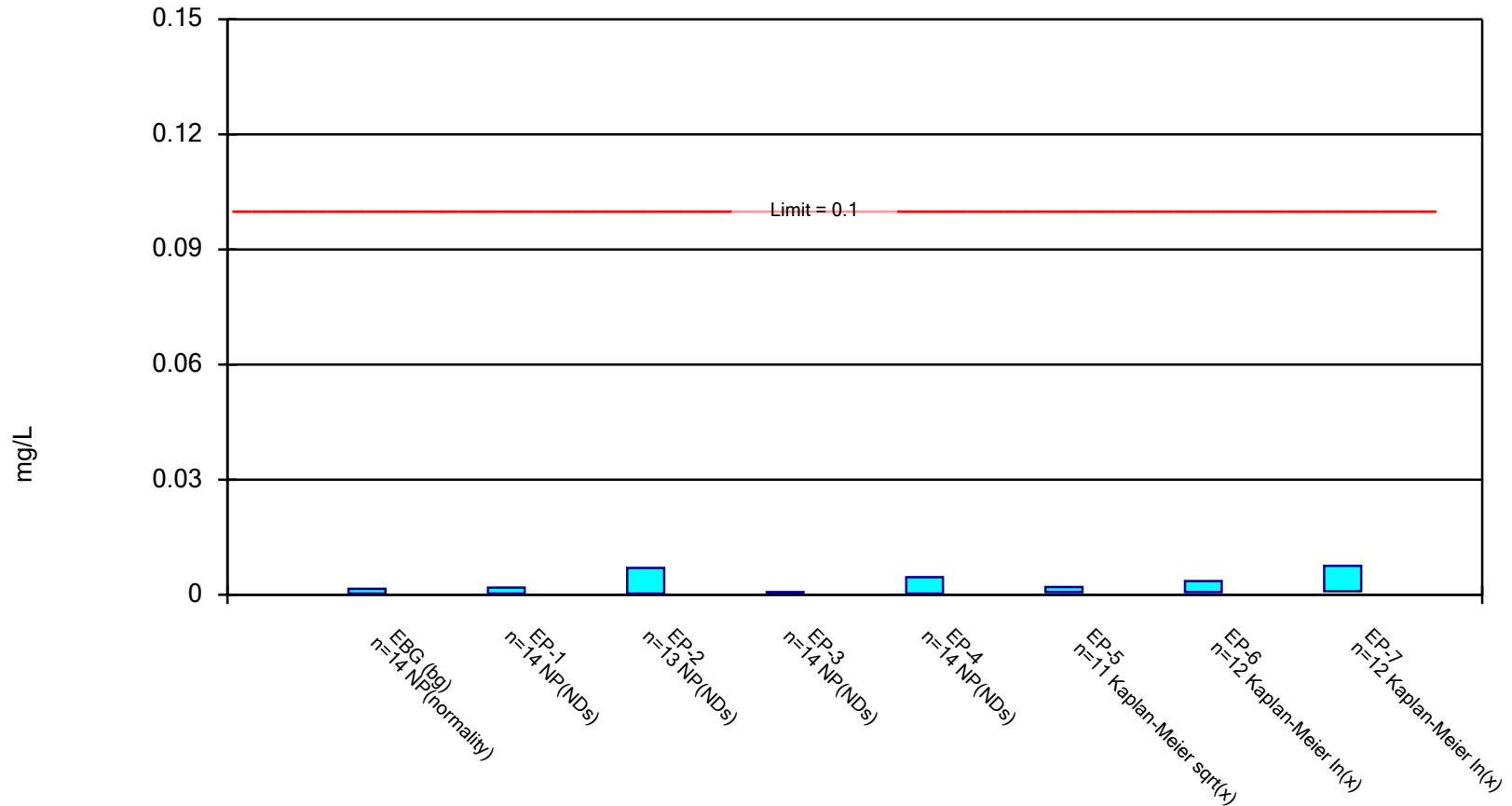


Constituent: Chloride Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

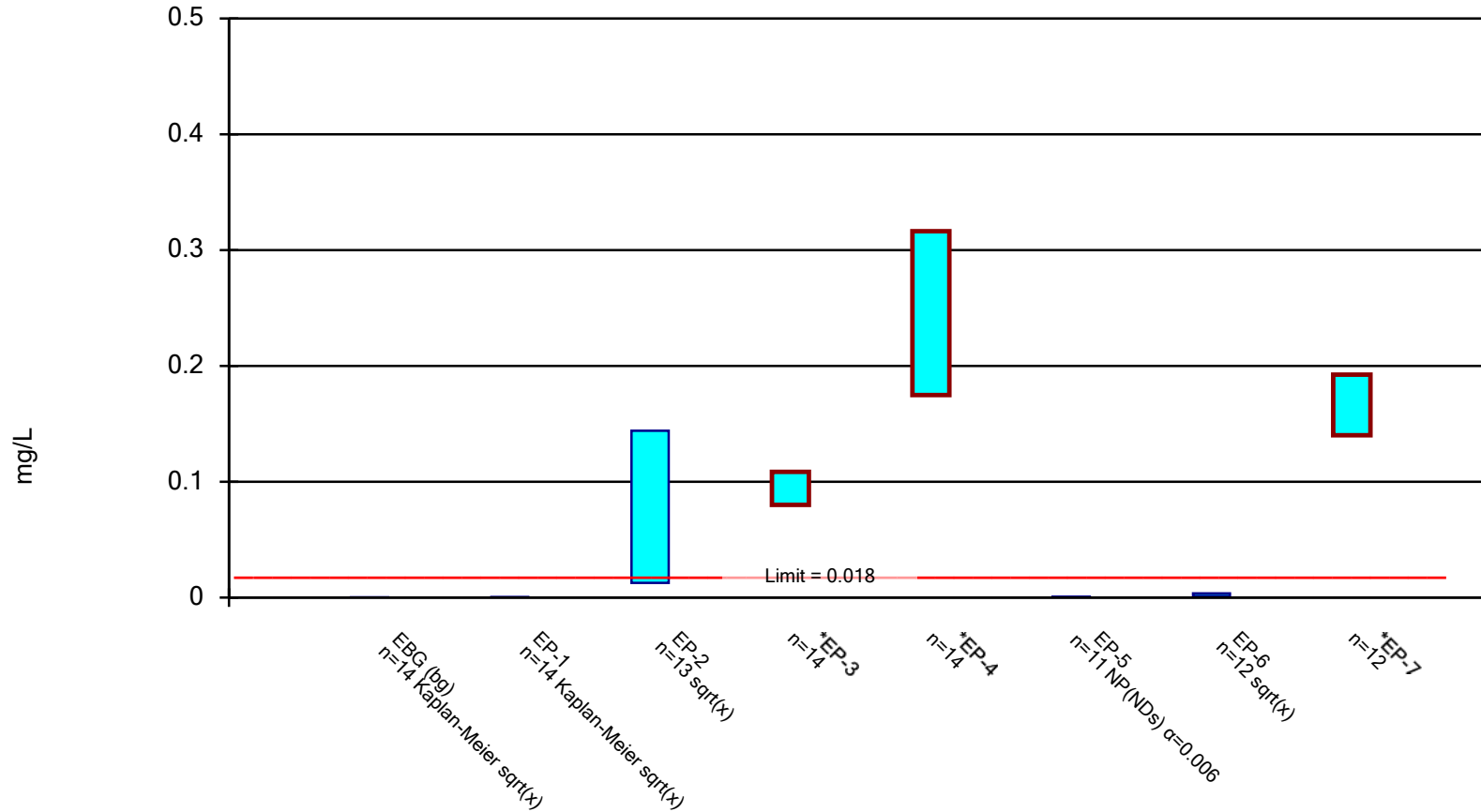


Constituent: Chromium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

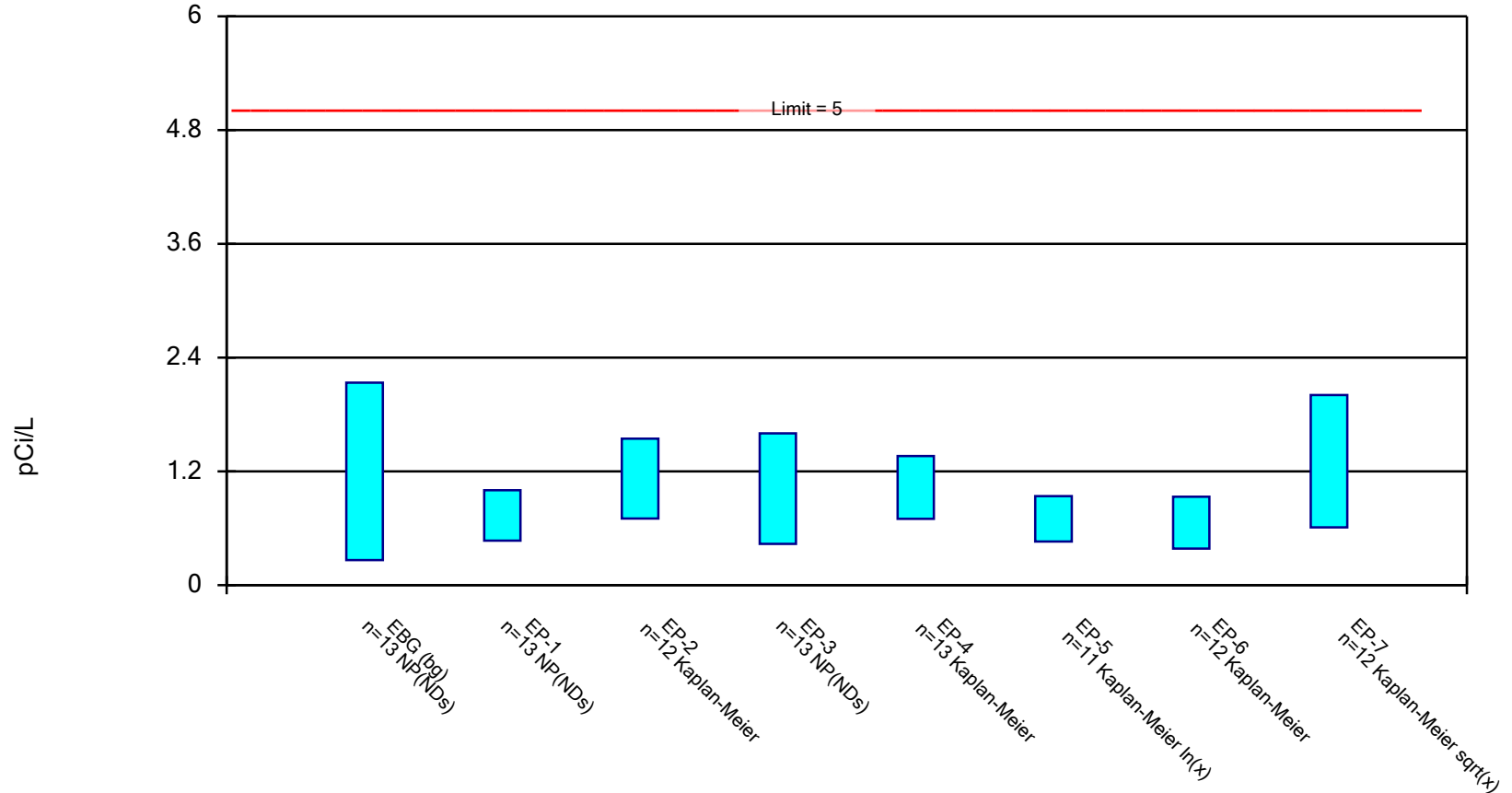


Constituent: Cobalt Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

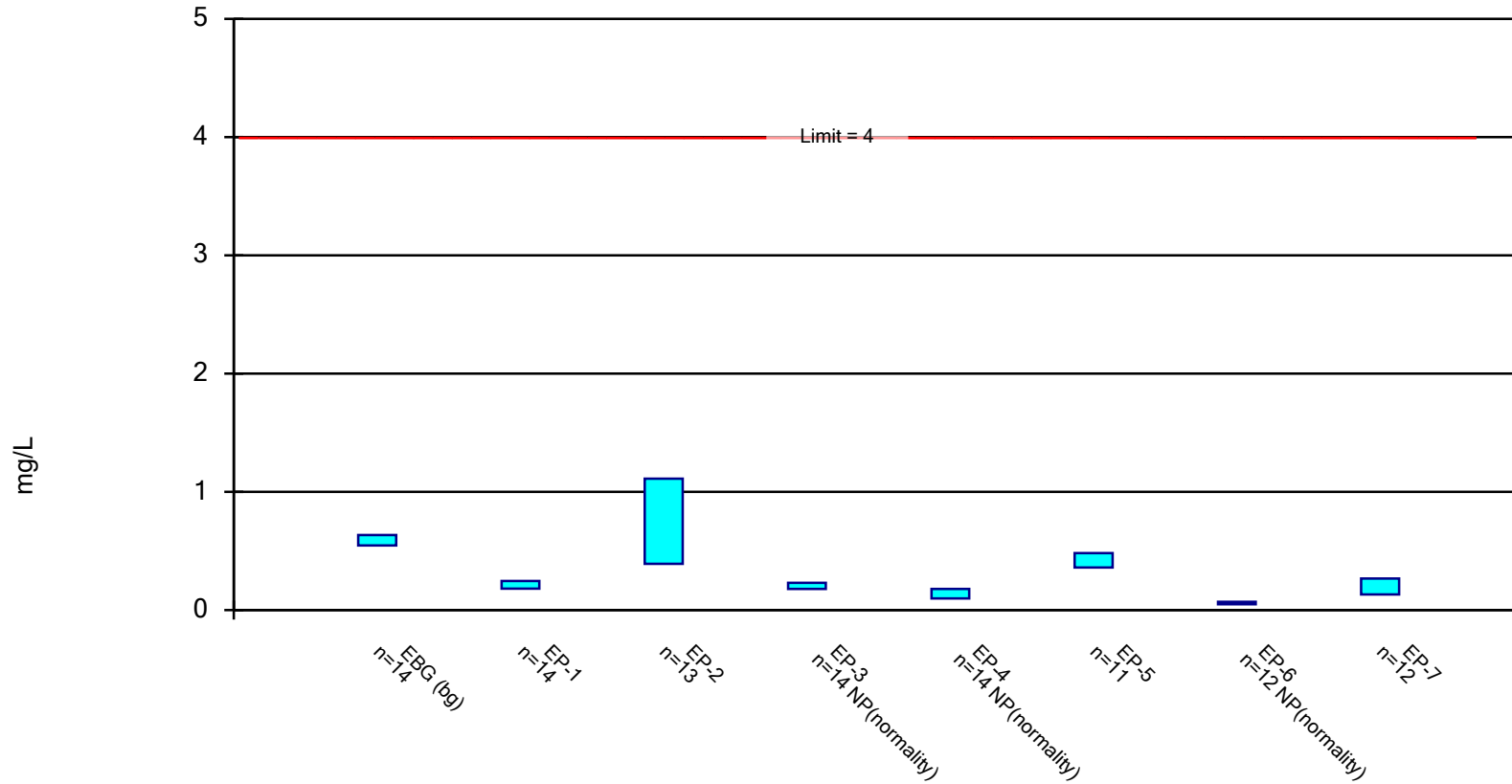
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium    Analysis Run 10/17/2024 4:45 PM  
Marion Power Plant    Client: SIPC    Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

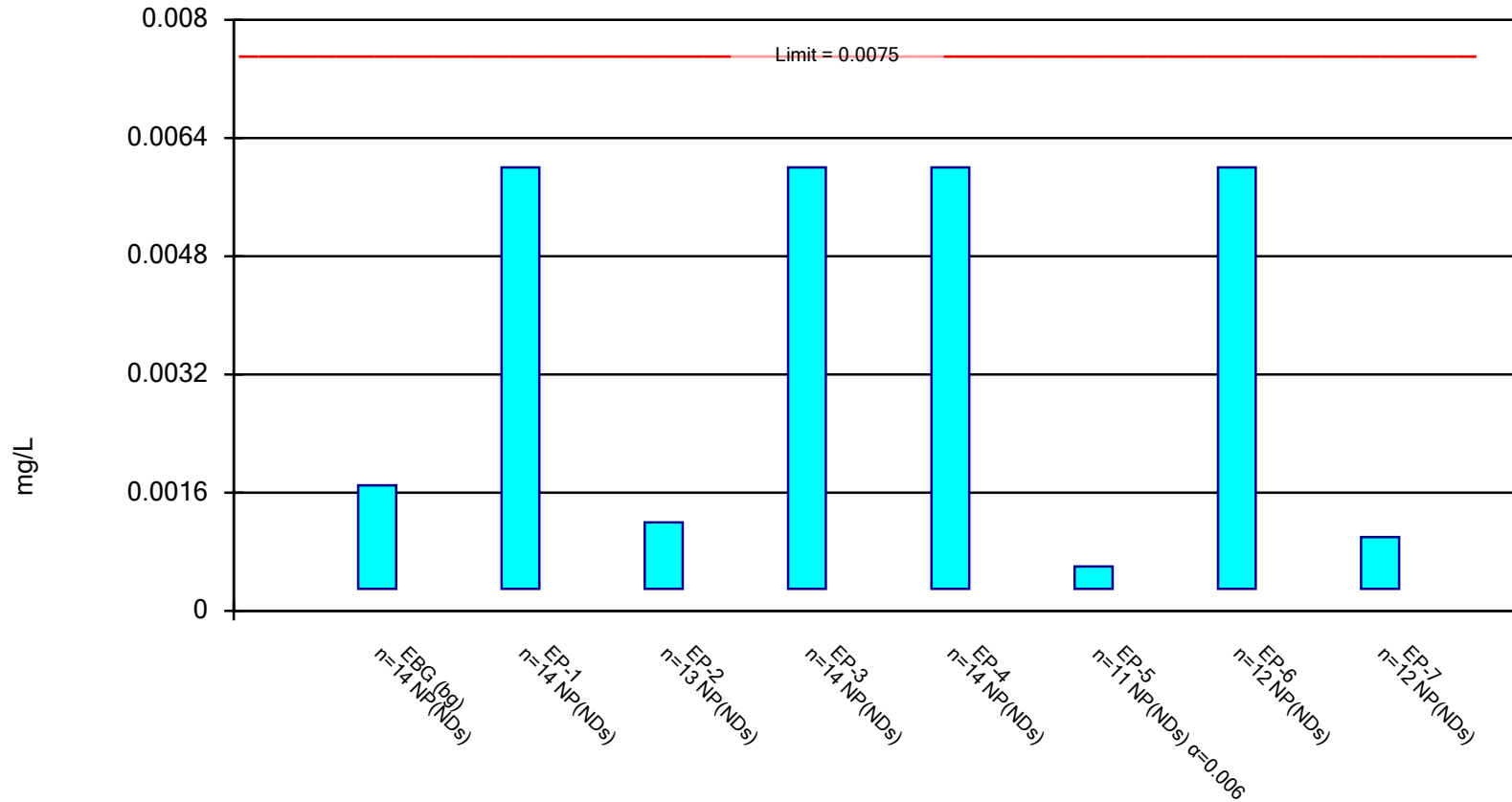


Constituent: Fluoride Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



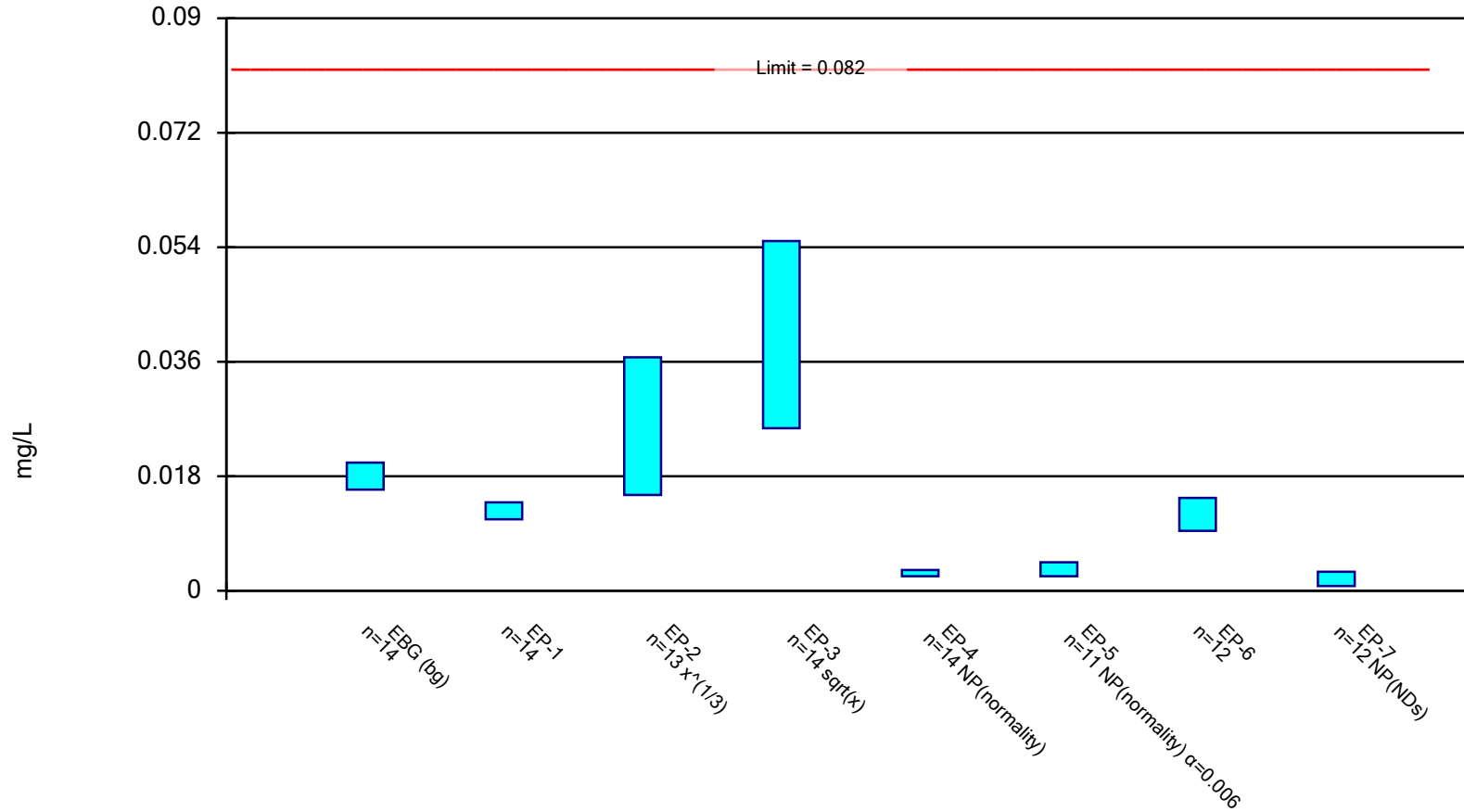
Constituent: Lead Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

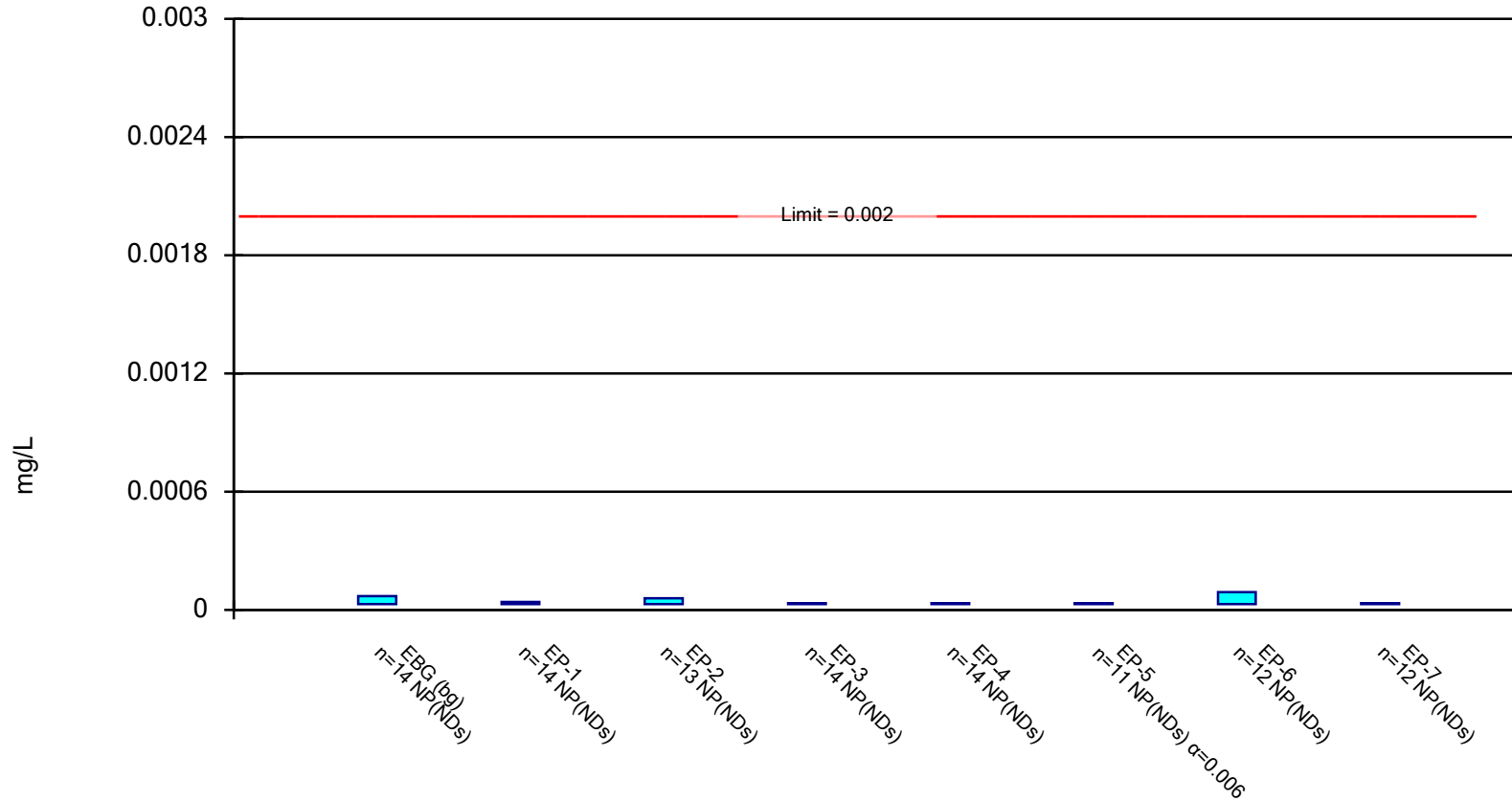


Constituent: Lithium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

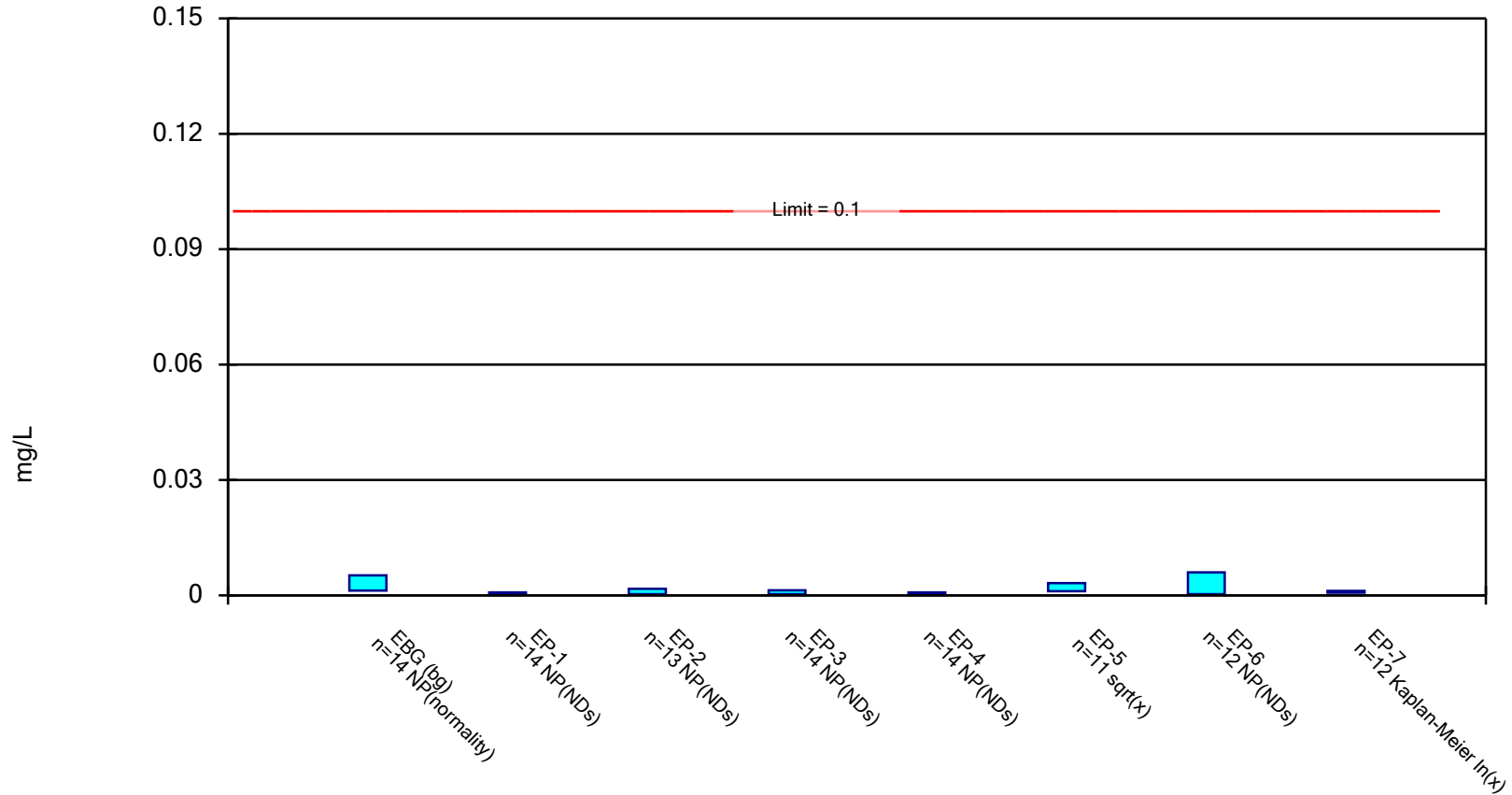


Constituent: Mercury Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

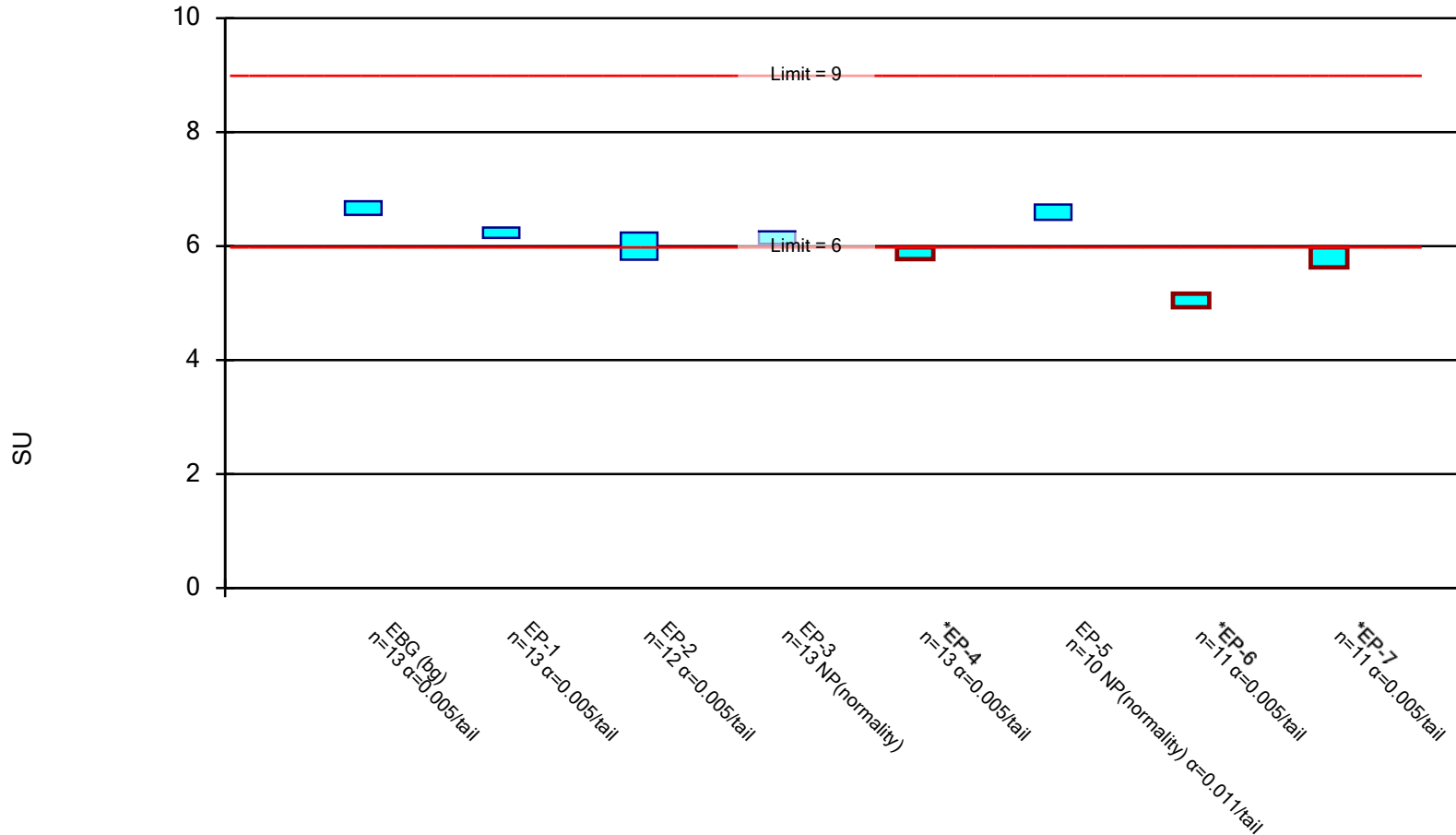


Constituent: Molybdenum Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

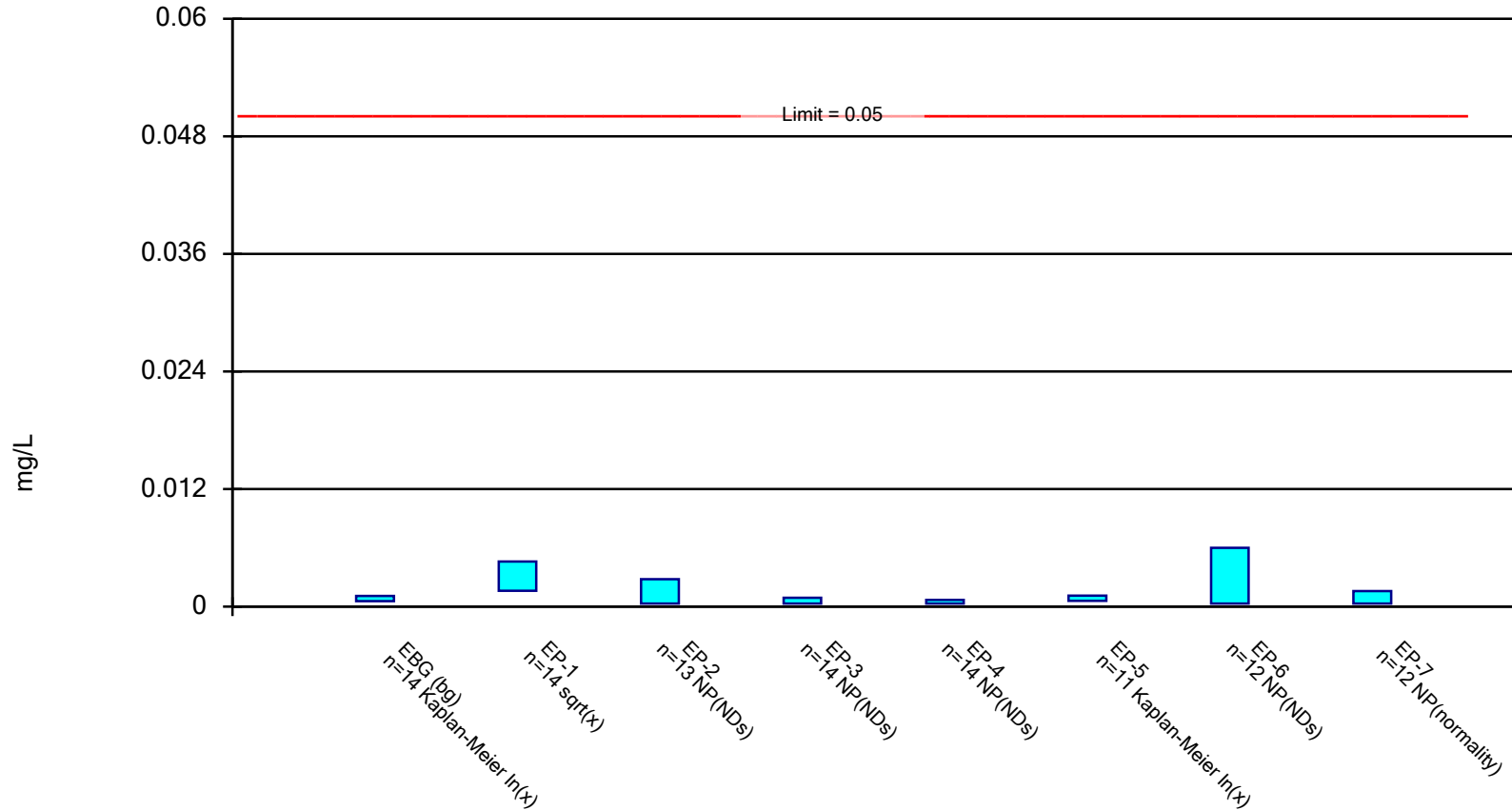


Constituent: pH Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

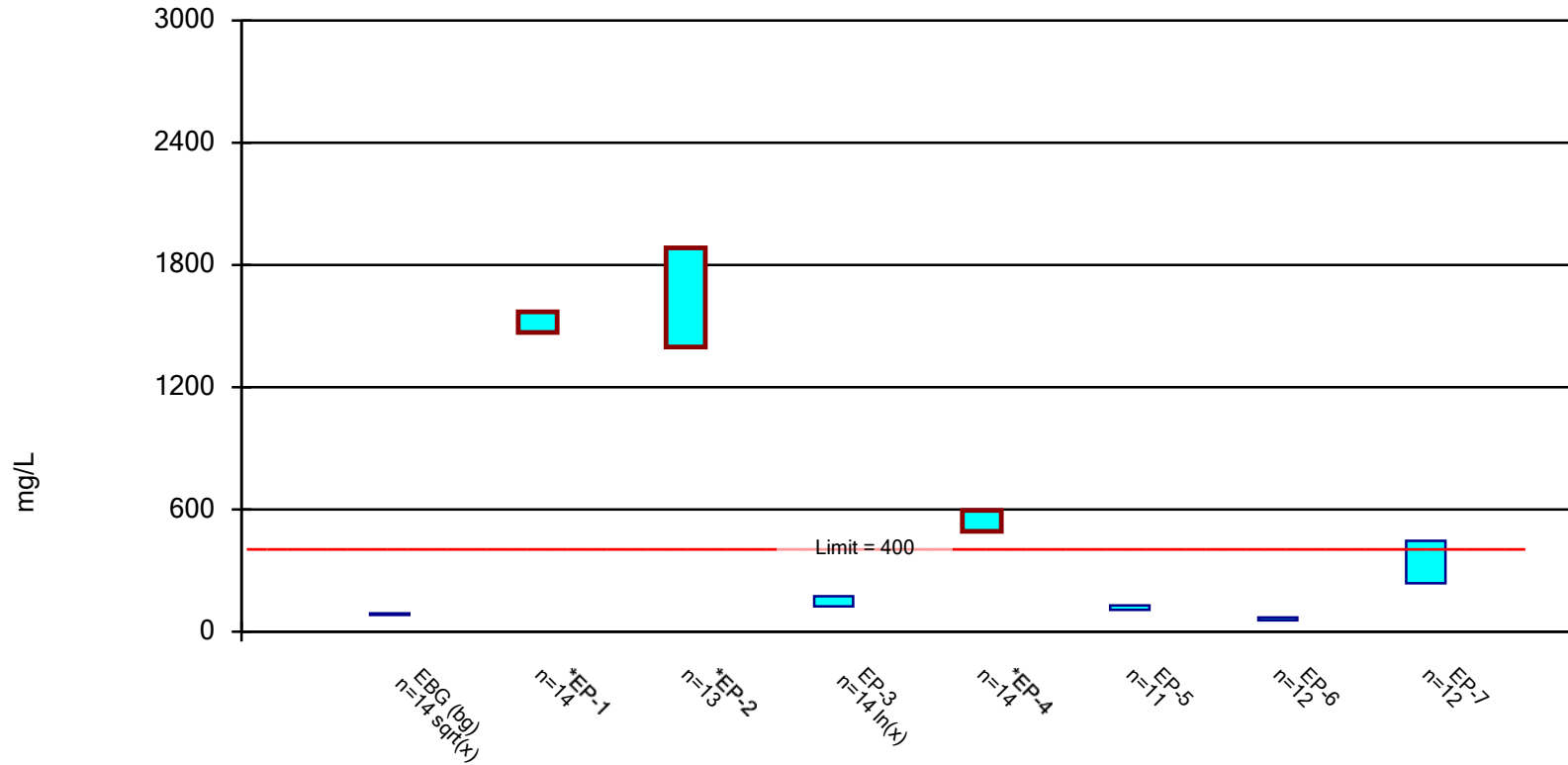


Constituent: Selenium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

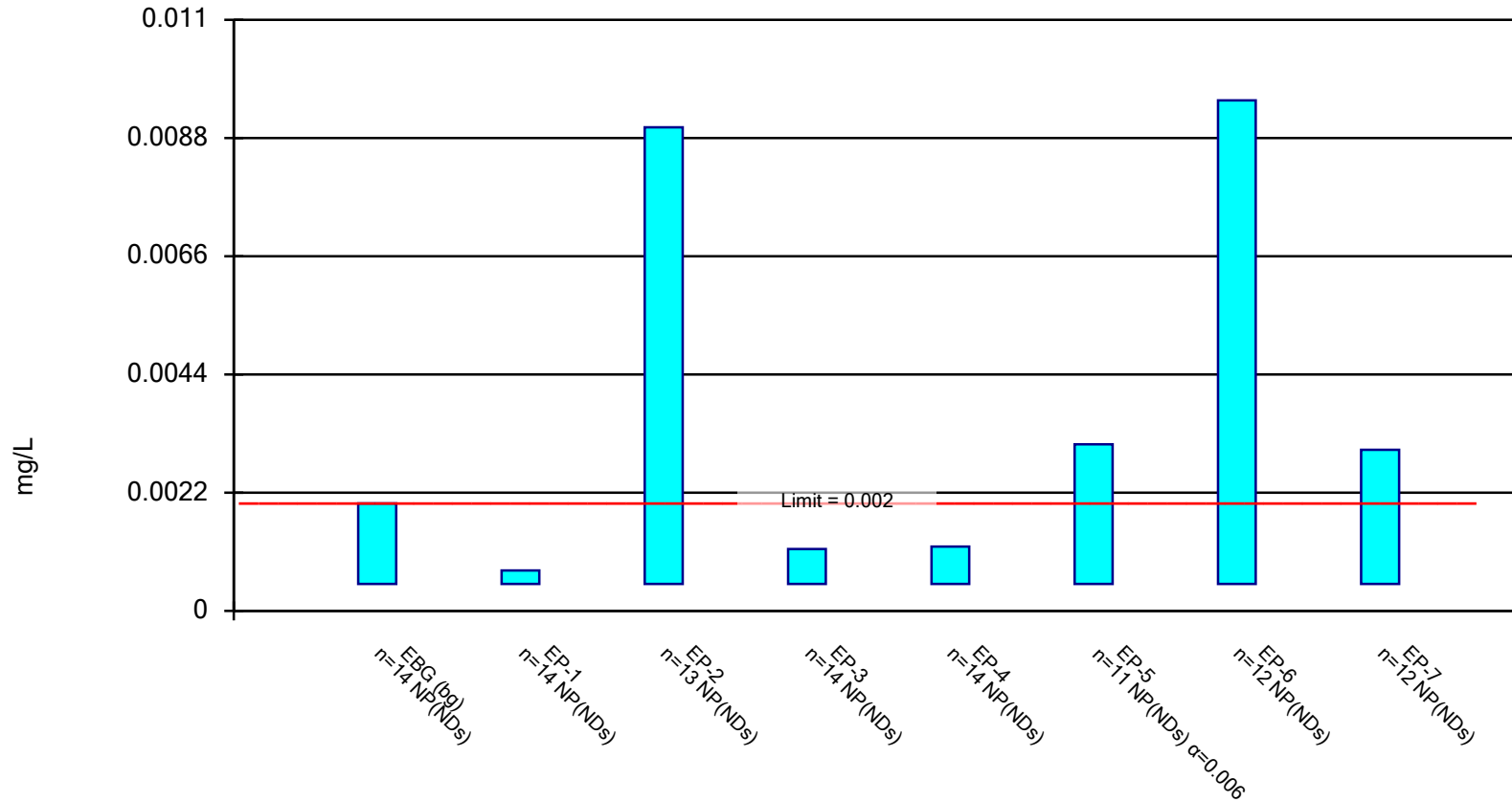


Constituent: Sulfate Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

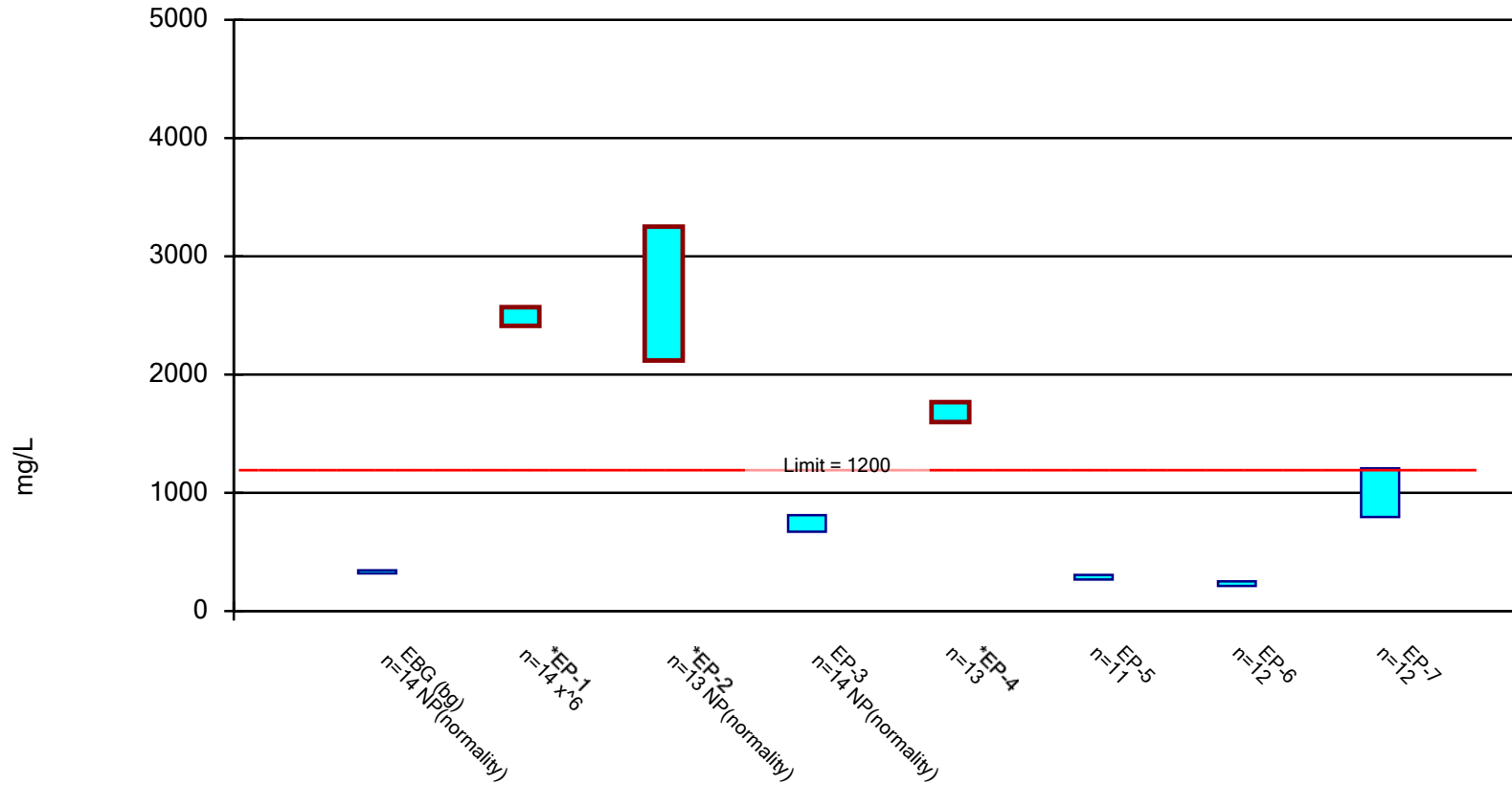


Constituent: Thallium Analysis Run 10/17/2024 4:45 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Total Dissolved Solids Analysis Run 10/17/2024 4:45 PM

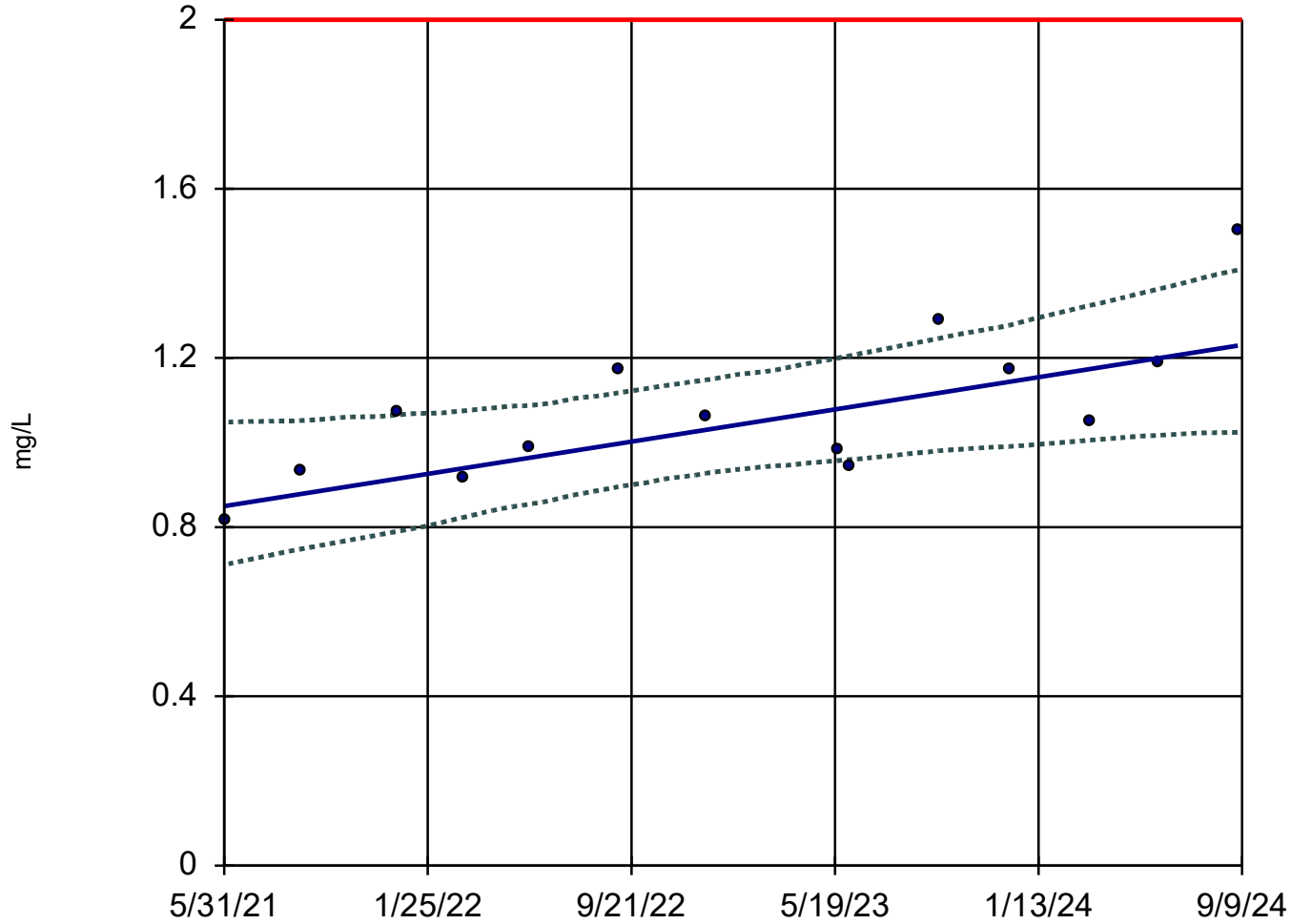
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3





### Sen's Slope and 95% Confidence Band

EP-1



n = 14

Slope = 0.1162  
units per year.

Mann-Kendall  
statistic = 48  
critical = 44

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

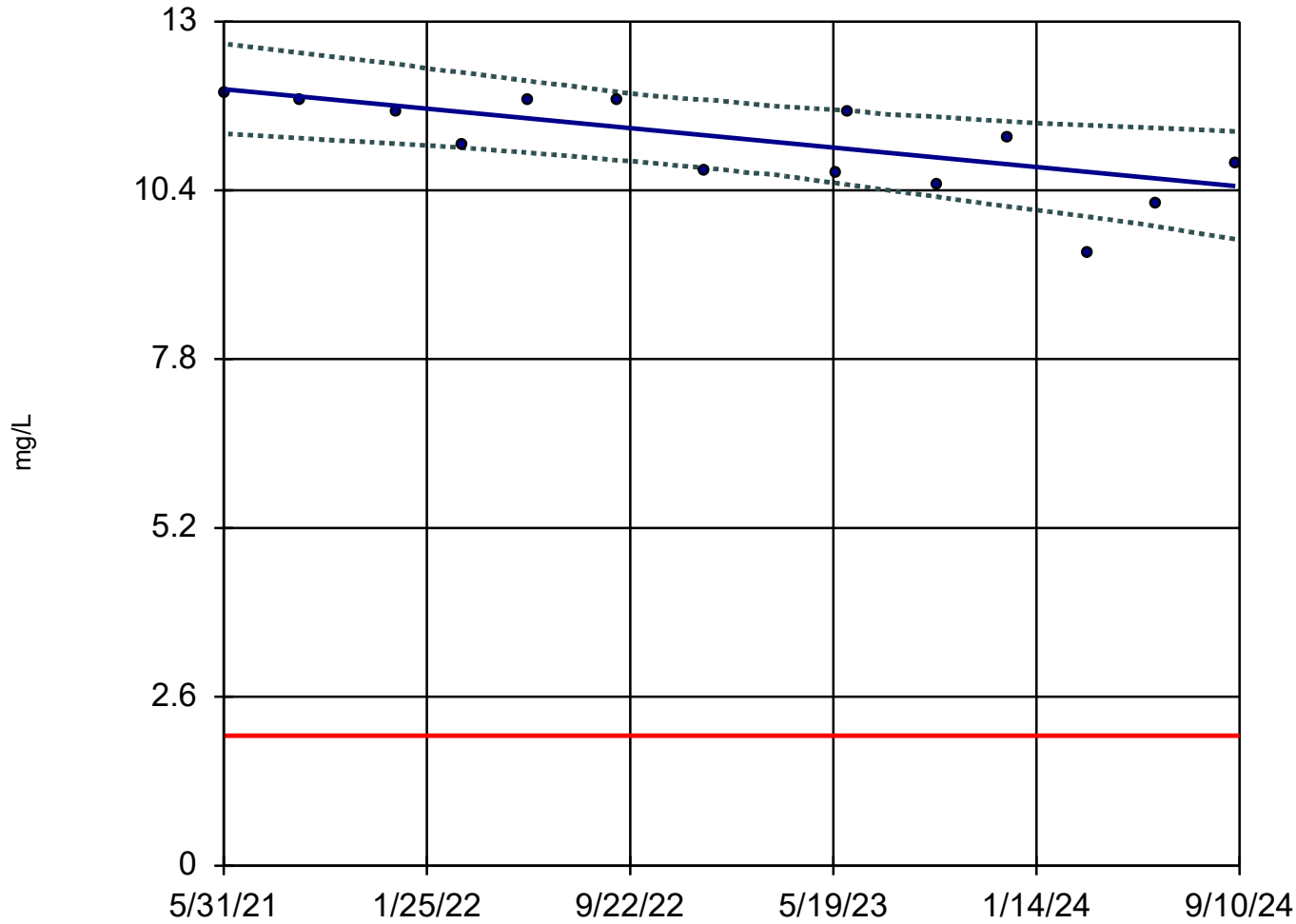
Confidence band is  
below IEPA (2).

Constituent: Boron Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-4



n = 14

Slope = -0.4563  
units per year.

Mann-Kendall  
statistic = -53  
critical = -44

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

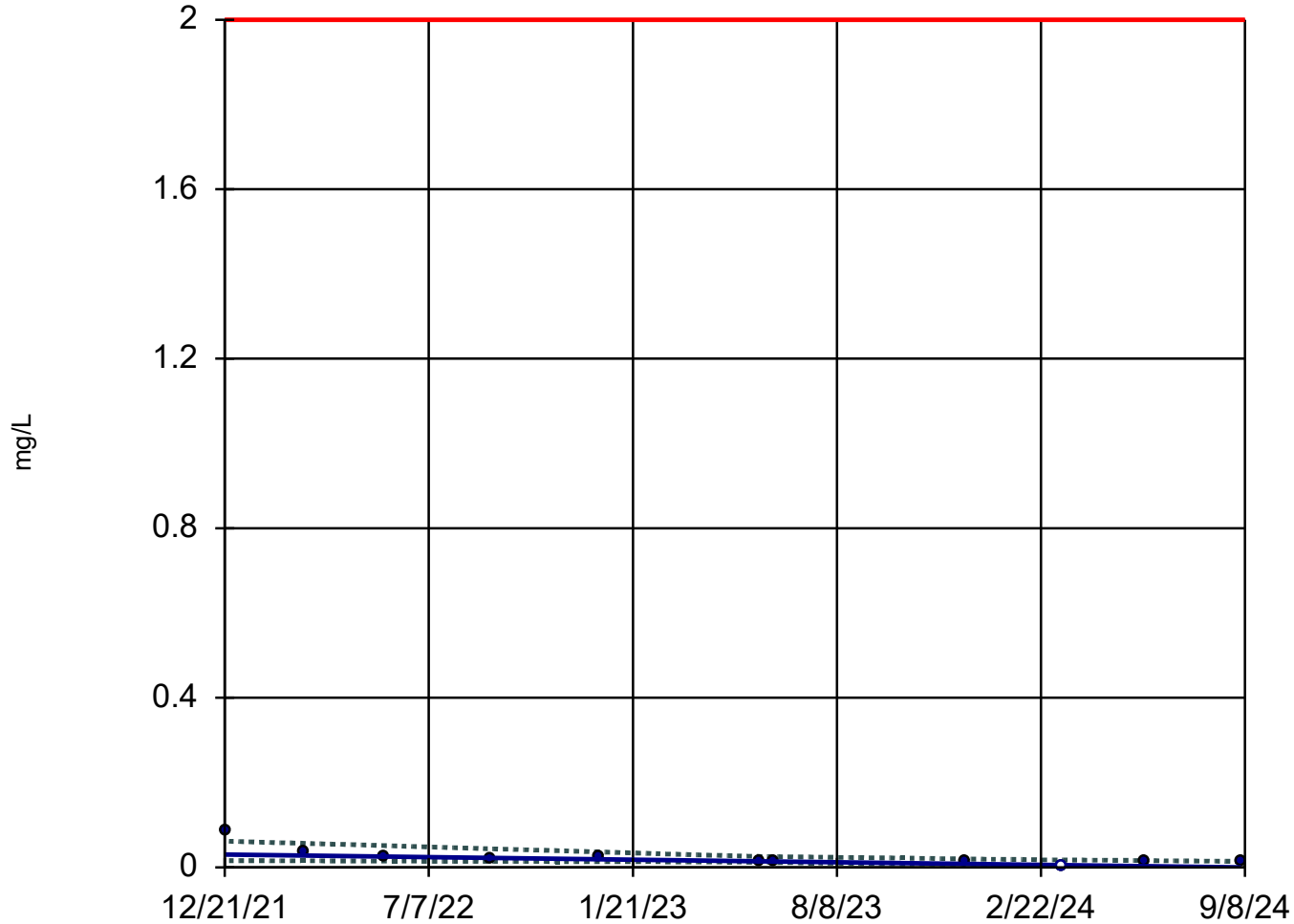
Confidence band is  
above IEPA (2).

Constituent: Boron Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



n = 11

Slope = -0.01114  
units per year.

Mann-Kendall  
statistic = -39  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

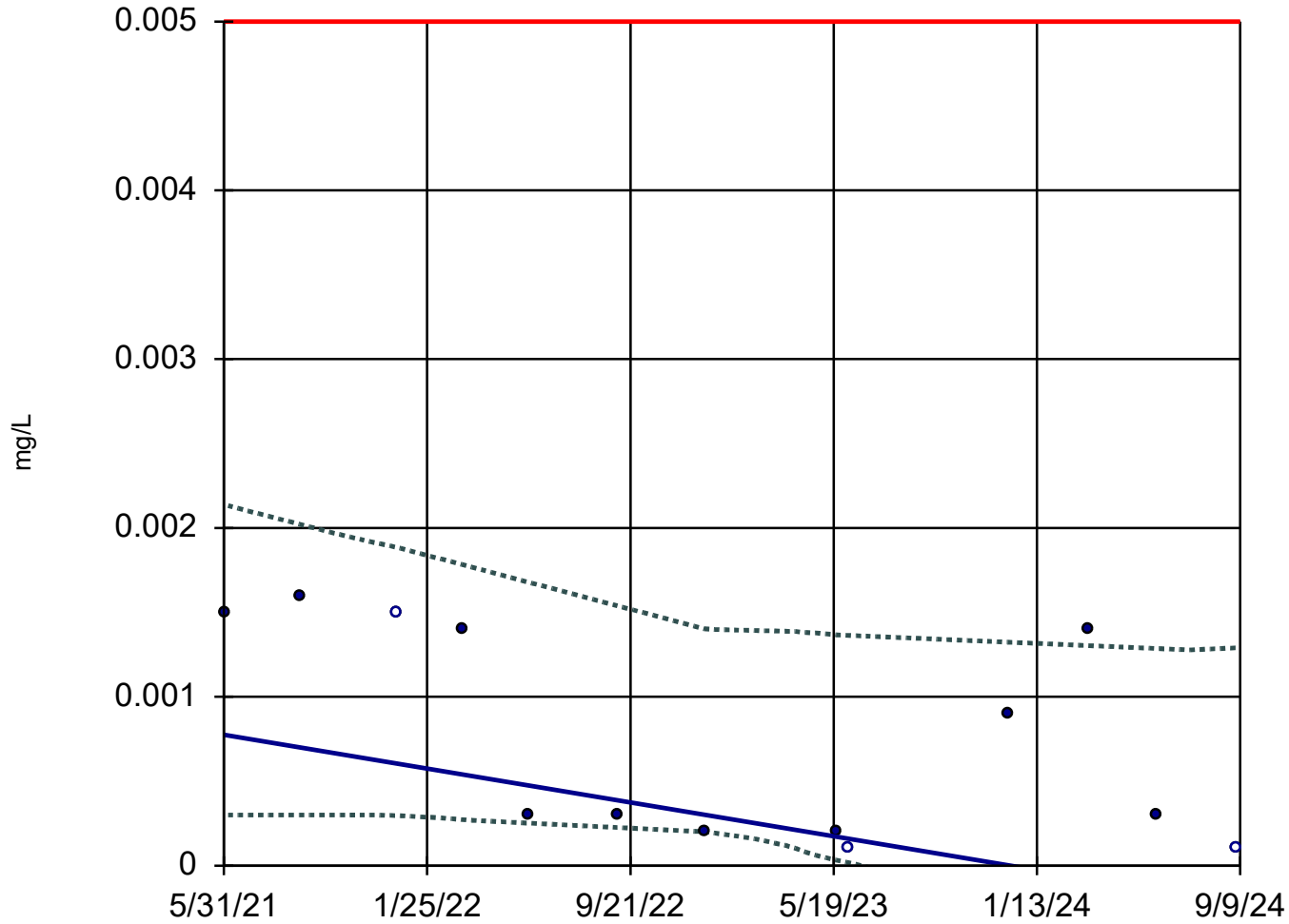
Confidence band is  
below IEPA (2).

Constituent: Boron Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-2



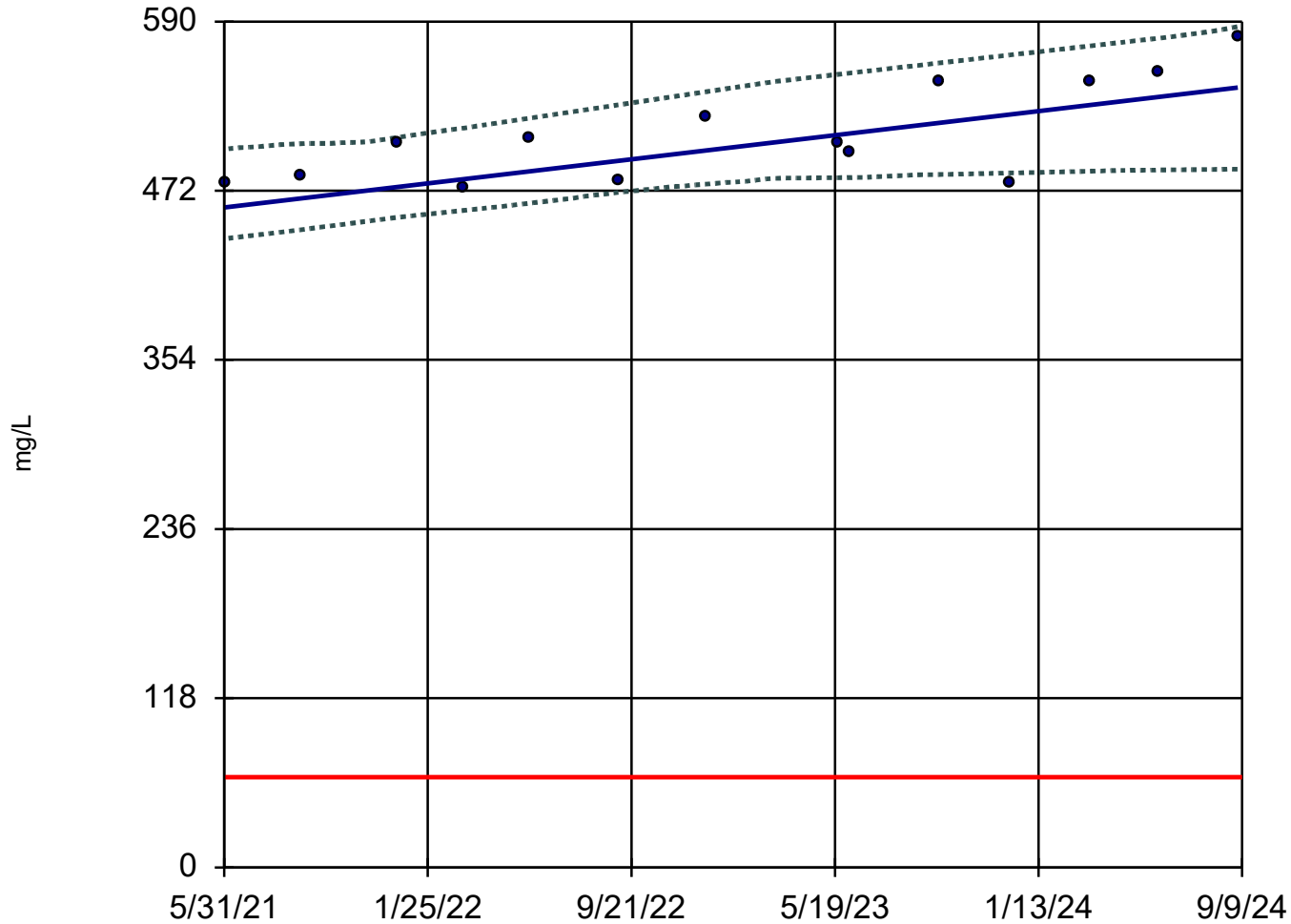
n = 13  
Slope = -0.0003053  
units per year.  
Mann-Kendall  
statistic = -41  
critical = -39  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.005).

Constituent: Cadmium Analysis Run 10/17/2024 3:56 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-1



n = 14

Slope = 25.62  
units per year.

Mann-Kendall  
statistic = 46  
critical = 44

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

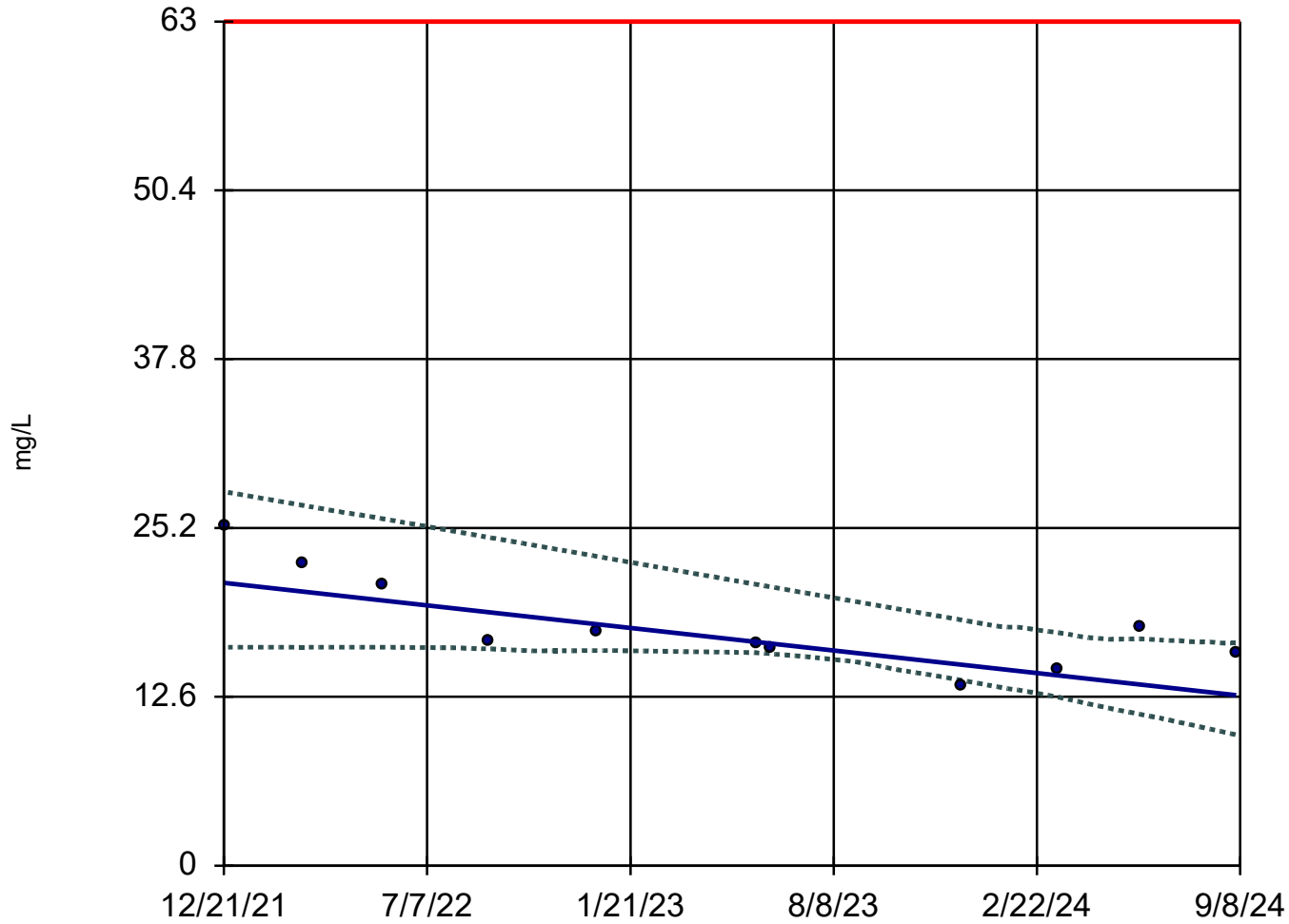
Confidence band is  
above Background (63).

Constituent: Calcium Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



n = 11

Slope = -3.099  
units per year.

Mann-Kendall  
statistic = -35  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

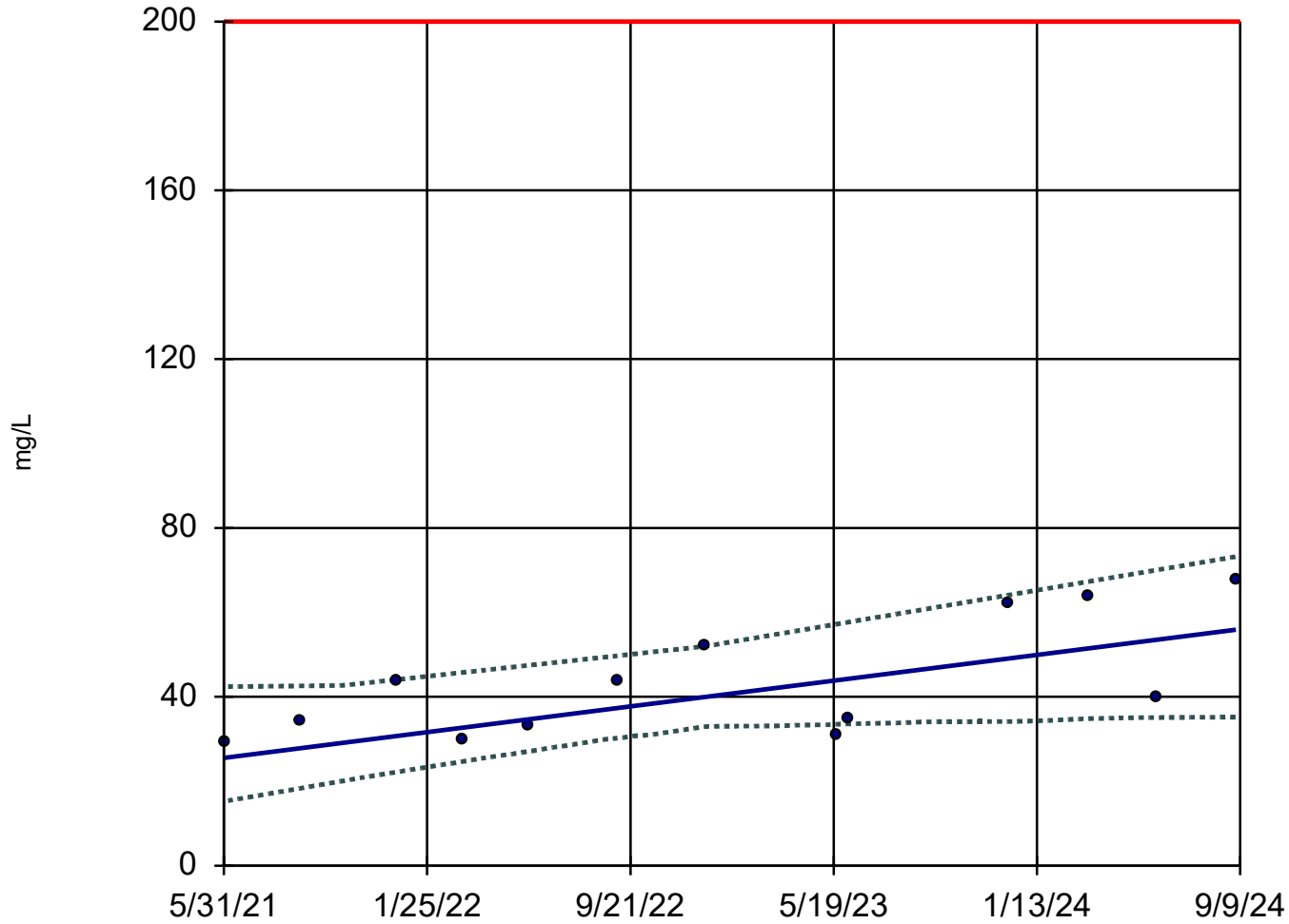
Confidence band is  
below Background (63).

Constituent: Calcium Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-2



n = 13

Slope = 9.297  
units per year.

Mann-Kendall  
statistic = 44  
critical = 39

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
below IEPA (200).

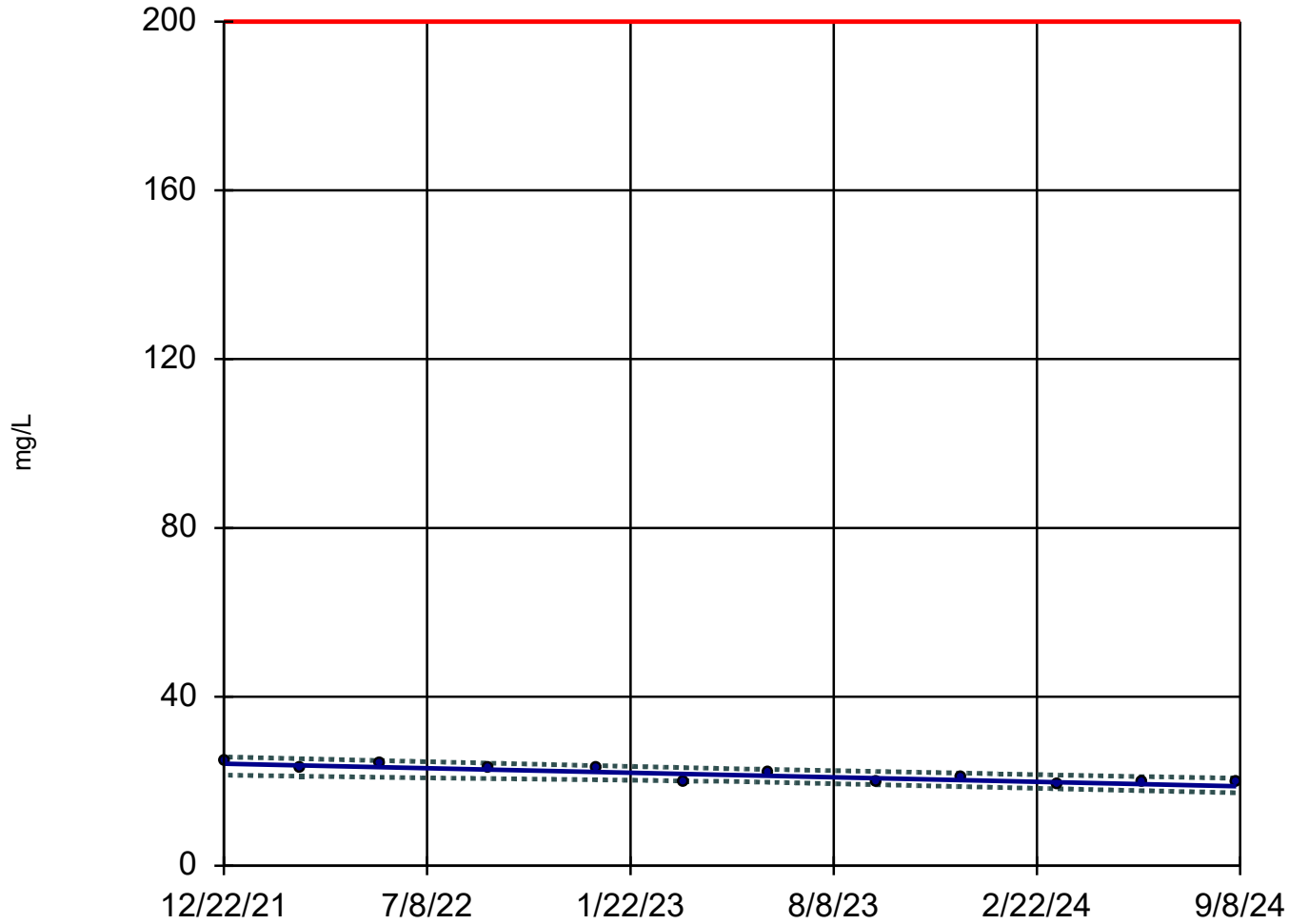
Constituent: Chloride Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3



### Sen's Slope and 95% Confidence Band

EP-6



n = 12

Slope = -1.956  
units per year.

Mann-Kendall  
statistic = -48  
critical = -35

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

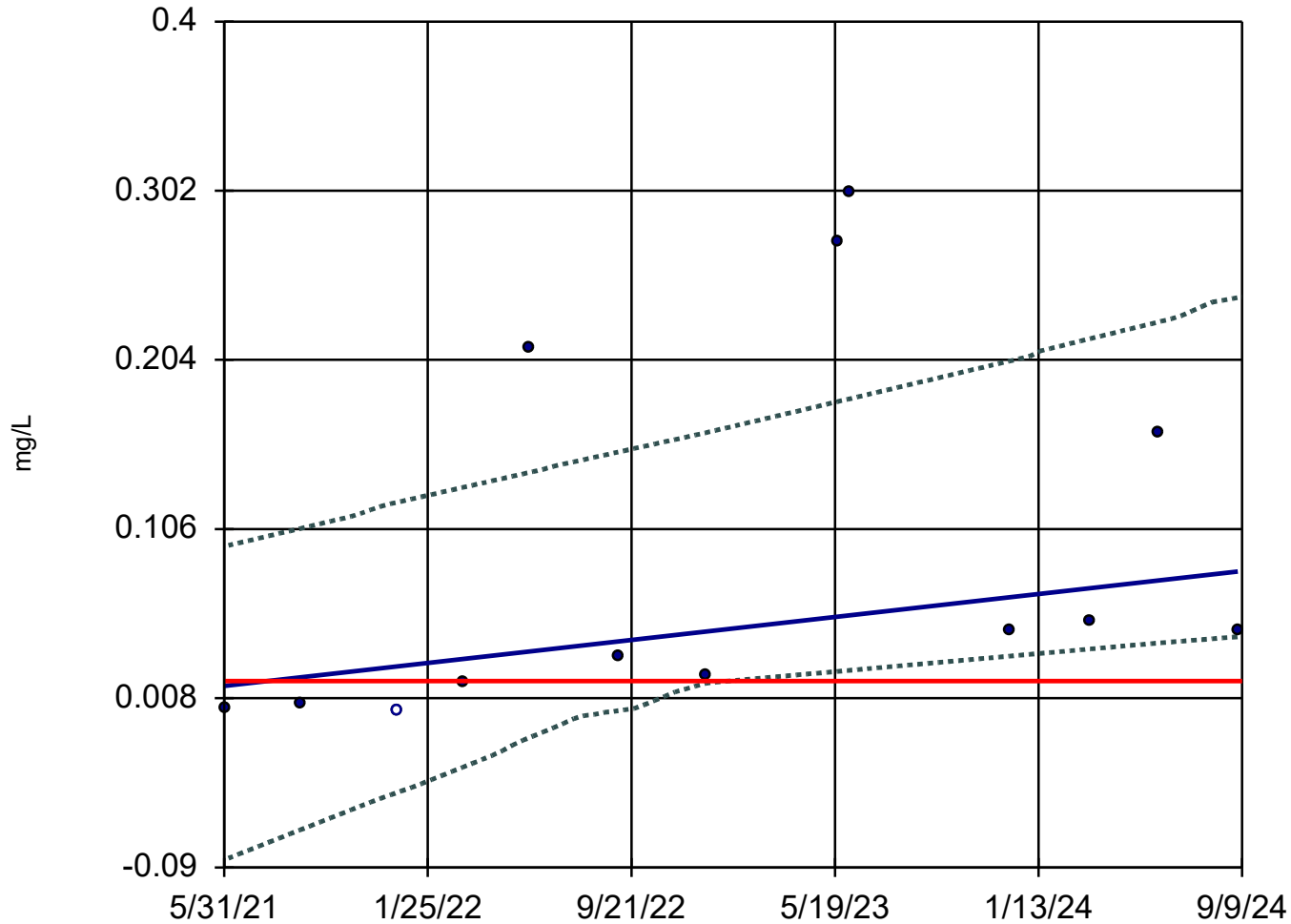
Confidence band is  
below IEPA (200).

Constituent: Chloride Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Sen's Slope and 95% Confidence Band

EP-2



n = 13

Slope = 0.02029  
units per year.

Mann-Kendall  
statistic = 40  
critical = 39

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

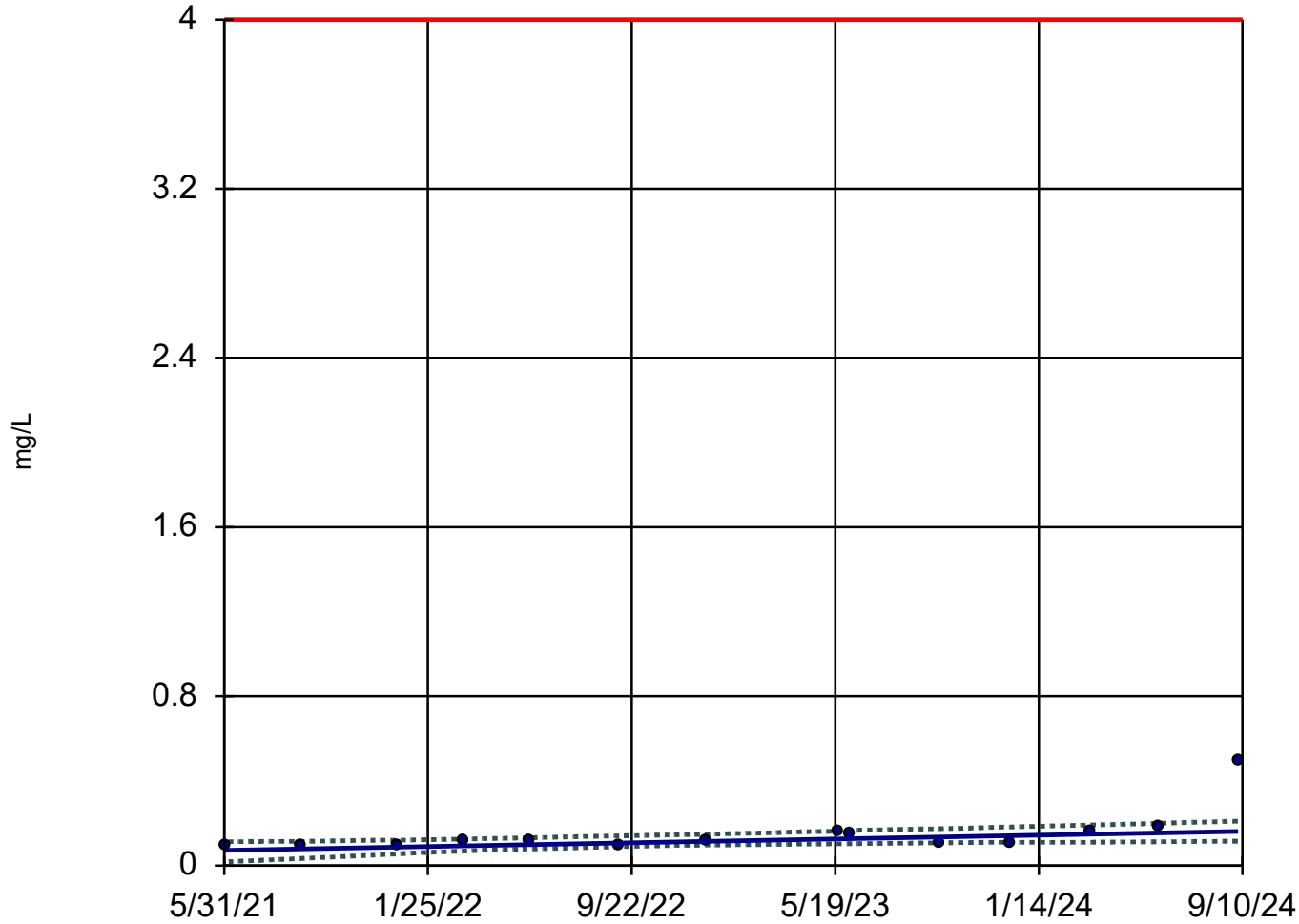
Confidence band intersects  
EPA (0.018) on 01/22/23.

Constituent: Cobalt Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

## Sen's Slope and 95% Confidence Band

EP-4



n = 14

Slope = 0.02756  
units per year.

Mann-Kendall  
statistic = 54  
critical = 44

Increasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

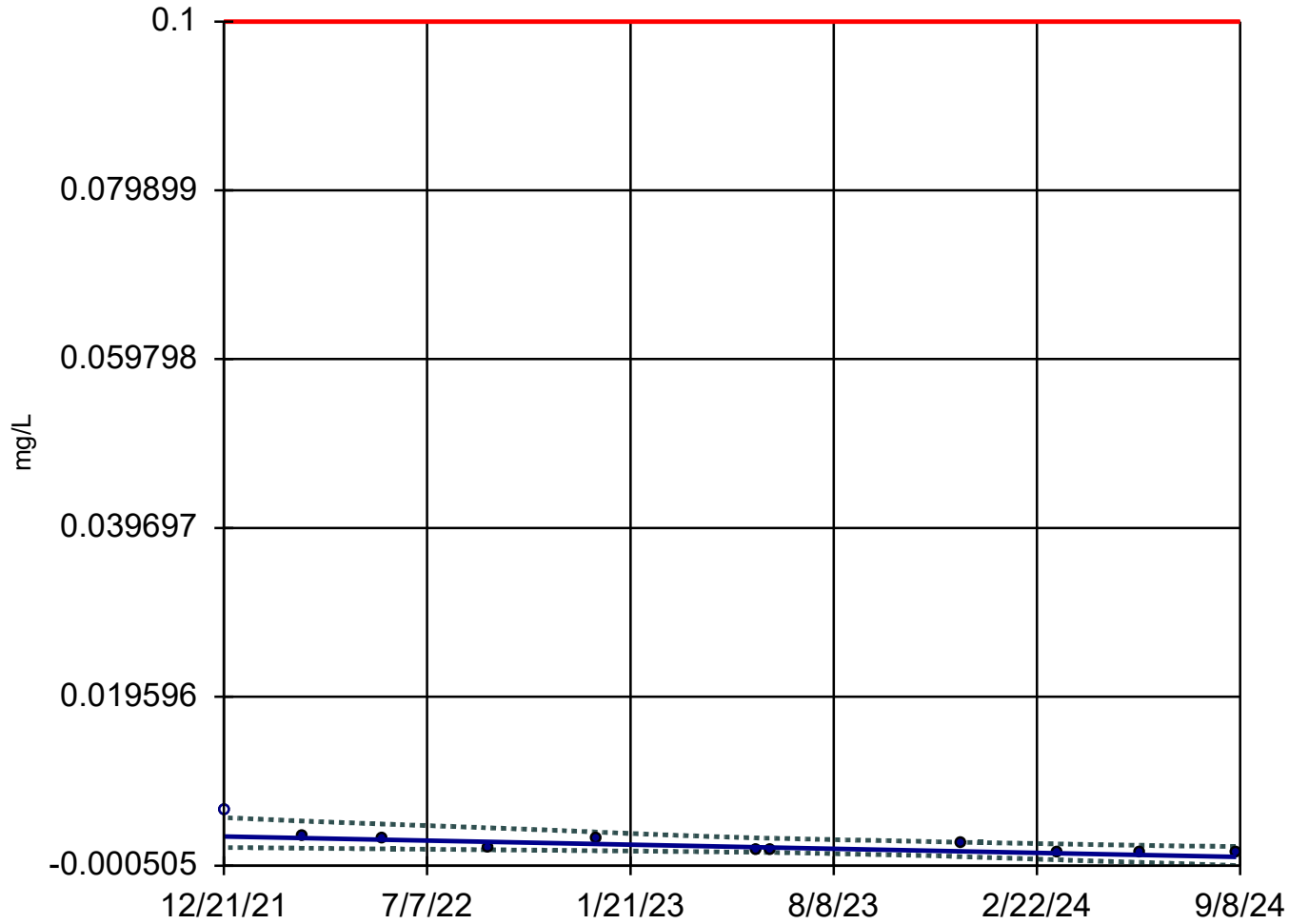
Confidence band is  
below EPA (4).

Constituent: Fluoride Analysis Run 10/17/2024 3:57 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5

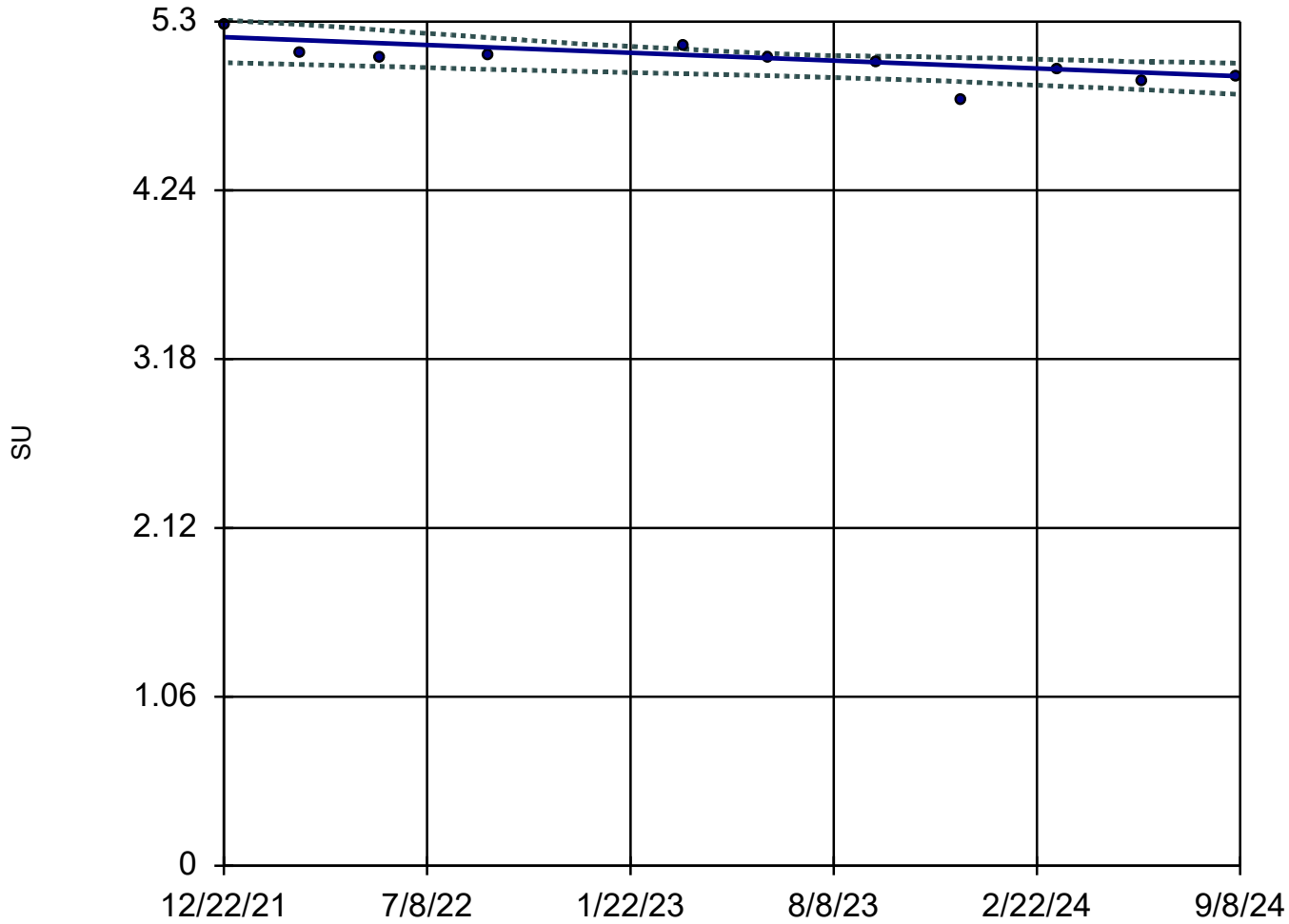


n = 11  
Slope = -0.0008902  
units per year.  
Mann-Kendall  
statistic = -41  
critical = -31  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.1).

Constituent: Molybdenum Analysis Run 10/17/2024 3:57 PM  
Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-6



n = 11

Slope = -0.0906  
units per year.

Mann-Kendall  
statistic = -38  
critical = -31

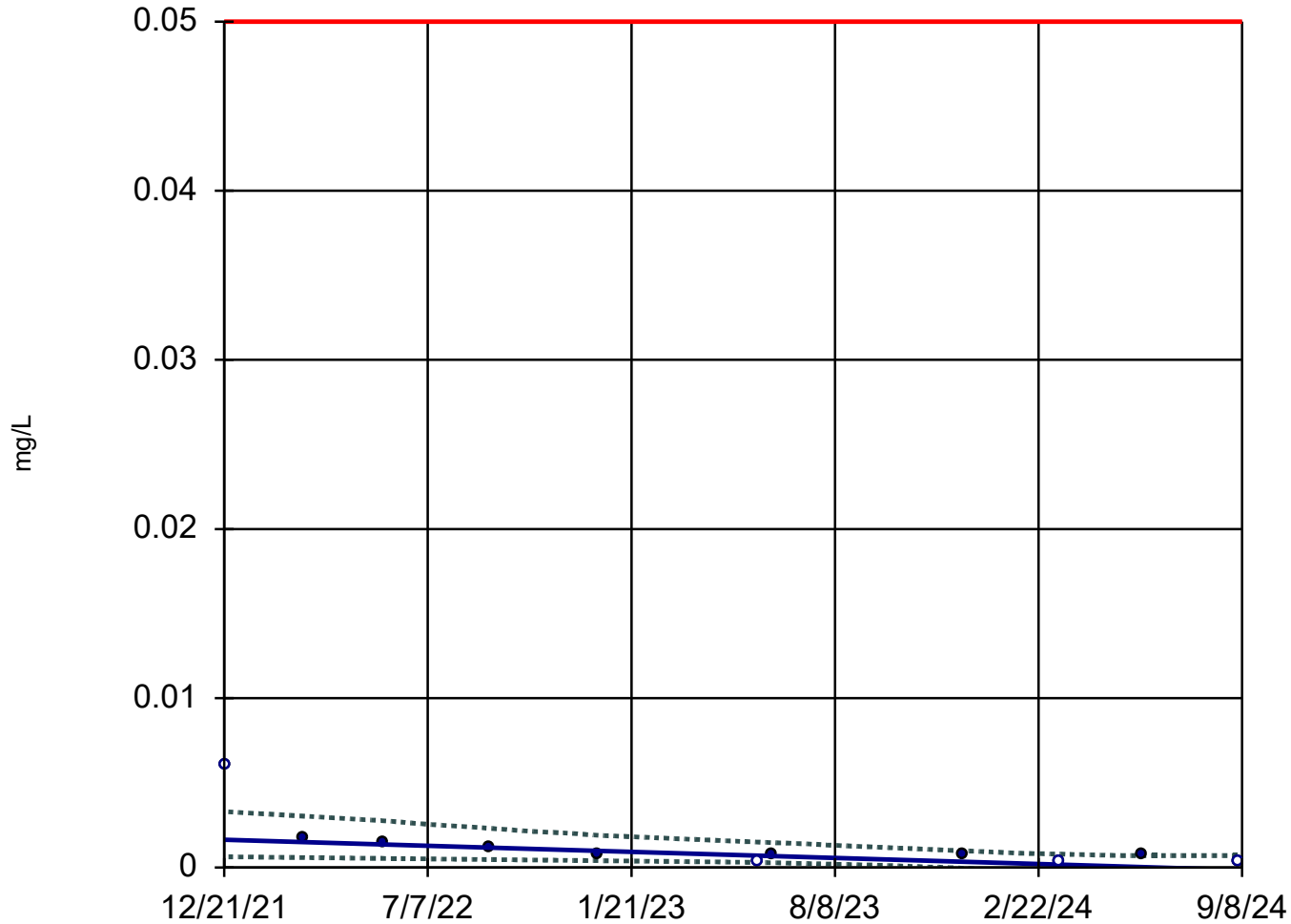
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Constituent: pH Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



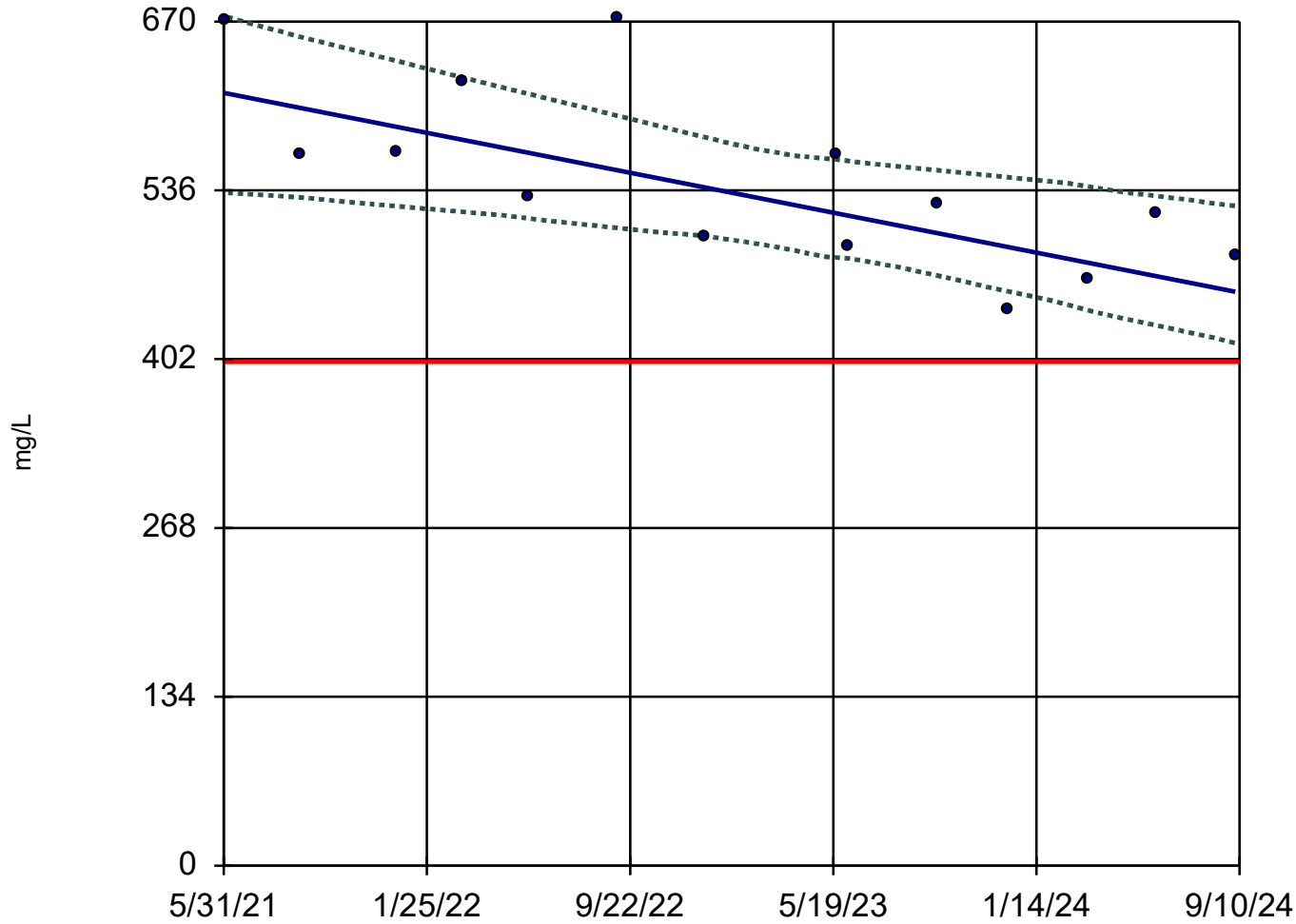
n = 11  
Slope = -0.0006646  
units per year.  
Mann-Kendall  
statistic = -37  
critical = -31  
Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).  
Confidence band is  
below EPA (0.05).

Constituent: Selenium Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-4



n = 14

Slope = -48.31  
units per year.

Mann-Kendall  
statistic = -53  
critical = -44

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

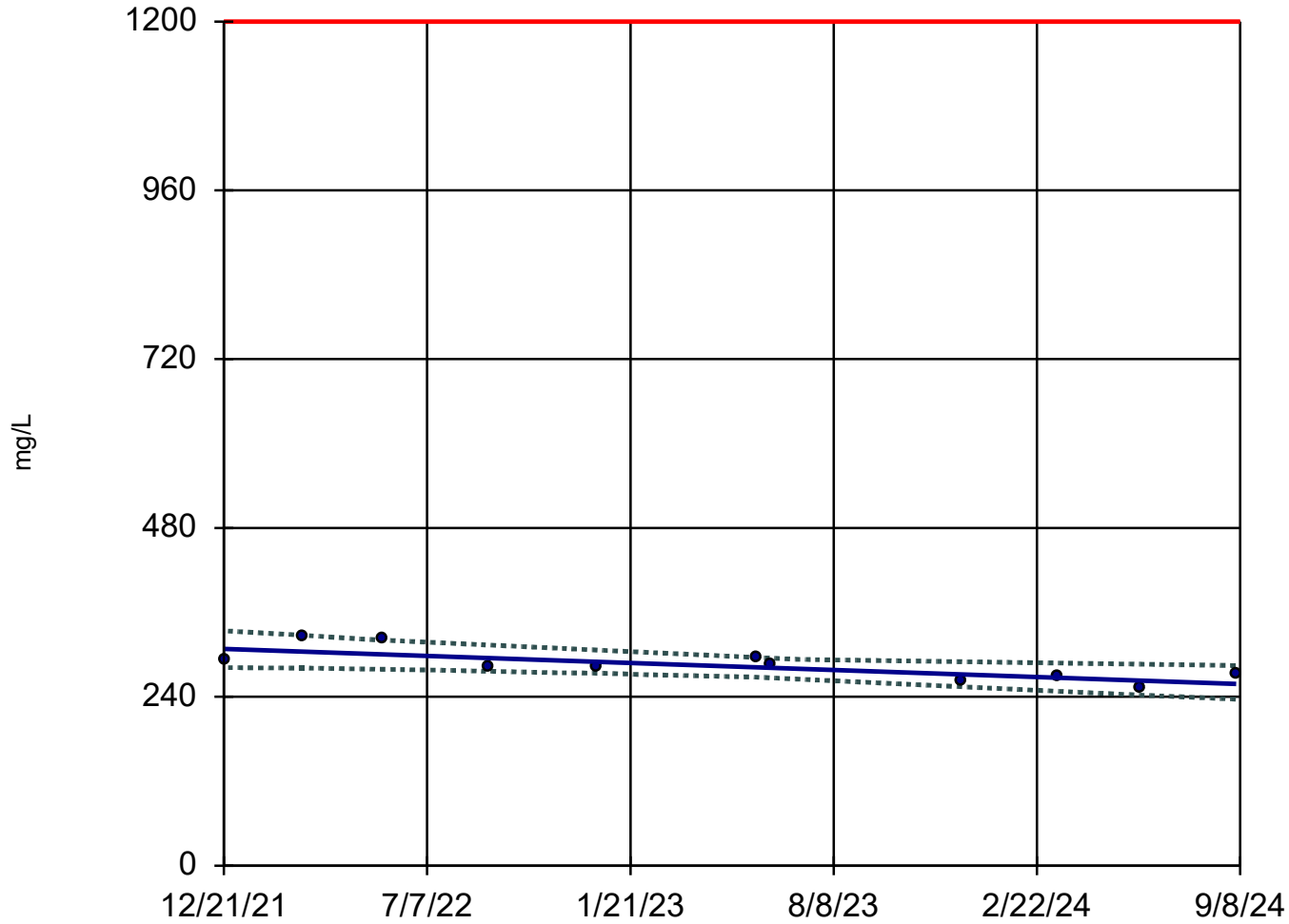
Confidence band is  
above IEPA (400).

Constituent: Sulfate Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3

### Sen's Slope and 95% Confidence Band

EP-5



n = 11

Slope = -18.46  
units per year.

Mann-Kendall  
statistic = -32  
critical = -31

Decreasing trend  
significant at 98%  
confidence level  
( $\alpha = 0.01$  per  
tail).

Confidence band is  
below IEPA (1200).

Constituent: Total Dissolved Solids Analysis Run 10/17/2024 3:58 PM

Marion Power Plant Client: SIPC Data: SIPC Statistical Database 2024 Q3