

January 30, 2024

Hillary Young, P.E.  
Chief Engineer - Land Protection Division  
Oklahoma Department of Environmental Quality  
P.O. Box 1677  
Oklahoma City, OK 73162

*submitted electronically*

Re: 2023 Annual Groundwater and Corrective Action Report  
Evans and Associates Construction Co, Inc. / Big Fork Ranch Facility – Ponca City, OK

Dear Ms. Young:

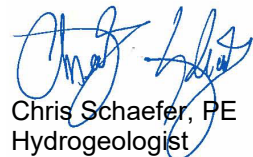
Enclosed, please find a copy of the above referenced report.

A copy of this notification will be placed in the facility's operating record and on the facility's publicly accessible internet web site.

Please notify me at 405-701-8215 or at [Chris.Schaefer@altamira-us.com](mailto:Chris.Schaefer@altamira-us.com) if you have any questions.

Sincerely,

**Altamira-US, LLC**



Chris Schaefer, PE  
Hydrogeologist

cc: Saeed Zahrai, P.E. / EMERA, Corp.

# 2023 Annual Groundwater and Corrective Action Report

**EVANS AND ASSOCIATES CONSTRUCTION COMPANY, INC.**  
**BIG FORK RANCH FACILITY**  
**Ponca City, Oklahoma**

**January 30, 2024**

*Prepared for:*

**Evans and Associates Construction Co., Inc.**  
3320 North 14<sup>th</sup> Street  
Ponca City, Oklahoma 74602

*Prepared by:*

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2023 Annual Groundwater and Corrective Action Report  
January 30, 2024  
Evans and Associates Construction Company, Inc.– Big Fork Ranch Facility

## Professional Engineer Certification

I, as a registered Professional Engineer in the State of Oklahoma, verify the accuracy of the information in this report.



Christopher Scott Schaefer  
Name of Professional Engineer

22313  
Registration Number

Oklahoma  
Issuing State

Altamira-US, LLC (CA# 7335)  
Firm

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## **1.0 EXECUTIVE SUMMARY**

This 2023 Annual Groundwater and Corrective Action Report (Report) is prepared on behalf of Evans and Associates Construction Co., Inc. (Evans) in relation to its Big Fork Ranch coal combustion residuals (CCR) facility in Ponca City, Oklahoma (Facility). This report is developed in accordance with the rules of the State of Oklahoma, Oklahoma Administrative Code Chapter 517, Disposal of Coal Combustion Residuals from Electric Utilities (OAC 252:517).

At the start of the 2023 monitoring period, the CCR Unit was operating under the assessment monitoring program pursuant to OAC 252:517-9-6. As of the end of the 2023 monitoring period, the CCR Unit continues to operate under the assessment monitoring program. The assessment monitoring program was established for the facility and notification of assessment monitoring program was provided on January 31, 2020.

The groundwater monitoring system is currently comprised of one upgradient (background) monitoring well (GWMP-6A) and five down-gradient (compliance) monitoring wells (GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, and GWMP-12A). Monitoring well GWMP-11A was incorporated into the monitoring program following resurvey of well elevations and reevaluation of groundwater flow direction (Resurvey of Monitoring Wells, Reevaluation of Groundwater Flow Direction, and Request to Discontinue Quarterly Sampling of GWMP-13A (Altamira; July 9, 2021) and subsequent approval by the ODEQ (ODEQ Letter; August 17, 2021).

The current background for detection monitoring parameters (Appendix A of OAC 252:517) for GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, and GWMP-12A are the upper prediction limits (UPLs) as calculated from the distribution of background data for each of the detection monitoring parameters and are as proposed in the 2021 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022); Table 7 (Detection Monitoring Parameters Current Background and Proposed Updates to Background). These replace previous background for detection monitoring parameters as established in the 2019 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022). The background from the 2019 Annual Groundwater and Corrective Action Report was revised to incorporate GWMP-11A as a compliance well.

The current Ground Water Protection Standards (GWPS) for each of the assessment monitoring parameters (Appendix B of OAC 252:517) are as established in the 2022 Annual Groundwater and Corrective Action Report (Altamira, January 31, 2023); Table 7 (Proposed Groundwater Protection Standards for Assessment Monitoring Parameters).

Activities conducted by Evans at the CCR unit over the 2023 calendar year are as listed below:

- 1) Submission of the 2022 Annual Groundwater and Corrective Action Report: A description of sample activities for the Year 2022 and comparison of Year 2022 groundwater sample data to statistically determined and approved UPLs (for detection monitoring parameters) and GWPS (for assessment monitoring parameters) were submitted to Oklahoma Department of Environmental Quality (ODEQ) in the 2022 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2023). This report included proposed revisions to the GWPS to remove historical data for antimony, beryllium, cadmium, and thallium where laboratory detection limits exceeded Federal Drinking Water Standards (MCLs) and to incorporate upgradient monitoring well data through October 2022. The ODEQ acknowledged receipt and approval of this submittal via letter dated March 2, 2023.
- 2) First 2023 Semi-Annual Assessment Monitoring: The first 2023 semi-annual assessment monitoring occurred April 17-25, 2023. No assessment monitoring parameters were detected at statistically significant levels (SSLs) over the established GWPS.
- 3) Second 2023 Semi-Annual Assessment Monitoring: The second 2023 semi-annual Assessment Monitoring occurred October 23-November 6, 2023. No assessment monitoring parameters were detected at SSLs over the established GWPS.

During the 2023 monitoring period a statistical significant increase (SSI) over established background was indicated for the detection monitoring parameters boron (GWMP-8A, GWMP-9A, GWMP-10A, and GWMP-12A), calcium (GWMP-12A), chloride (GWMP-8A, GWMP-11A, and GWMP-12A), fluoride (GWMP-10A and GWMP-12A), sulfate (GWMP-8A, GWMP-9A, and GWMP-12A), and TDS (GWMP-12A) for at least one of the monitoring events. No assessment monitoring parameters were identified at SSLs above the established GWPS. As such, no actions were required over the Year 2023 reporting period pertaining to assessment of corrective measures, selection of remedy, or initiation of remedial activities under OAC 252:517-9-6(g) and OAC 252:517-9-7.

Evans also completed activities over the Year 2023 to address deficiencies with its Run-on / Run-off Control Systems Plan Certification (5 Year update), and to address ODEQ concerns regarding standing water in Cell No. 8. These do not pertain to the groundwater sampling program and are outside the scope of this report. Submittals pertaining to these have been provided to ODEQ separate from the submittals described herein for ODEQ comment and approval.

## **2.0 GENERAL**

This 2023 Annual Groundwater and Corrective Action Report is prepared on behalf of Evans in relation to its Big Fork Ranch CCR facility in Ponca City, Oklahoma. This Report is developed in accordance with the rules of the State of Oklahoma, Oklahoma Administrative Code Chapter 517, Disposal of Coal Combustion Residuals from Electric Utilities (OAC 252:517). This Report documents the groundwater monitoring system for the Big Fork Ranch CCR Unit consistent with applicable sections of OAC 252:517 Subchapter 9, Groundwater Monitoring/Corrective Action. It is being submitted to the ODEQ to satisfy the requirement under OAC 252:517-9-1 that the owner or operator of a CCR unit prepare an Annual Groundwater Monitoring and Corrective Action Report.

This Report documents the status of the groundwater monitoring and corrective action program, it summarizes key actions completed over the previous year (2023), it describes problems encountered over the previous year and actions to resolve them, and it presents anticipated key activities for the upcoming year (2024). This Report will be placed in the operating record. The report will also be placed on the facilities publicly accessible CCR Website (<https://www.evansandassociatesconstructioncompany.com>).

## **3.0 MONITORING NETWORK**

Evans is currently conducting assessment monitoring for the CCR Unit at the Facility. The Facility utilizes a certified groundwater monitoring system. The groundwater monitoring system is currently comprised of one upgradient (background) monitoring well (GWMP-6A) and five down-gradient (compliance) monitoring wells (GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, and GWMP-12A). Monitoring wells GWMP-6A, GWMP-8A, GWMP-9A, and GWMP-10A were part of the Facilities original monitoring network. Monitoring well GWMP-12A was incorporated into the Facilities monitoring network in January 2020. Monitoring well GWMP-11A was incorporated into the monitoring program following resurvey of well elevations and reevaluation of groundwater flow direction (Resurvey of Monitoring Wells, Reevaluation of Groundwater Flow Direction, and Request to discontinue Quarterly Sampling of GWMP-13A (Altamira; July 9, 2021)) and subsequent approval by the ODEQ (ODEQ Letter; August 17, 2021). These wells are currently being sampled on a semi-annual basis for detection monitoring parameters (Appendix A of OAC 252:517) and assessment monitoring parameters (Appendix B of OAC 252:517).

In addition to monitoring wells discussed above, GWMP-13A exists at the Facility but is not part of the monitoring network. This well was initially installed for potential inclusion into the monitoring network. This monitoring well did not contain sufficient water for sample collection during any of the quarterly sampling events conducted in the year 2020 or during semi-annual sampling events conducted in the years 2021, 2022, or 2023. Over the course of its history GWMP-13A has only once contained sufficient water for sampling. Also, this well does not appear to be down-gradient of the CCR Unit. It was requested that monitoring of GWMP-13A be discontinued but gauged for water during semi-annual sampling events (Resurvey of Monitoring Wells, Reevaluation of Groundwater Flow Direction, and Request to discontinue Quarterly Sampling of GWMP-13A (Altamira; July 9, 2021). The ODEQ approved of this recommendation via letter dated August 17, 2021.

Location of monitoring wells GWMP-6A, GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, GWMP-12A, and GWMP-13A are depicted on **Figure 1**.

#### **4.0 SAMPLING HISTORY**

Groundwater sampling of network monitoring wells has been ongoing at the Facility since February 2017. All data collected to date is summarized on **Table 1**. Sampling history is as described below.

1. Sampling to establish background for detection monitoring parameters at GWMP-6A, GWMP-8A, GWMP-9A, and GWMP-10A was conducted between February 26, 2017 and September 2, 2018. Sampling to establish background for Assessment Monitoring parameters for these monitoring wells was conducted between January 6, 2018 and December 24, 2018 (except for fluoride which was not analyzed from December 24, 2018 samples but resampled on January 29 and 30, 2019). The groundwater sample data collected as part of initial background for GWMP-6A, GWMP-8A, GWMP-9A, and GWMP-10A were provided to the ODEQ in the 2018 Annual Groundwater and Corrective Action Report (Enviro Clean Cardinal, January 31, 2019). The 2018 Annual Groundwater and Corrective Action Report established upper prediction limits (UPLs) from the distribution of background data for each of the detection monitoring parameters and established Ground Water Protection Standards (GWPS) for each of the assessment monitoring parameters. The 2018 Annual Groundwater and Corrective Action Report is in Evan's operating record and on Evan's publicly accessible CCR Website.

2. The initial 2019 semi-annual detection monitoring event for monitoring wells GWMP-6A, GWMP-8A, GWMP-9A, and GWMP-10A occurred on April 22, 2019. From the April 2019 sampling, potentially statistically significant increases (SSIs) over the established background were indicated for some detection monitoring parameters. Verification sampling was conducted on June 18, 2019. Results confirmed the findings from the April 2019 sampling. On June 28, 2019, Evans determined there may be potential SSIs over the established background at GWMP-8A (for chloride), at GWMP-9A (for TDS, boron, chloride, fluoride, and sulfate), and at GWMP-10A (for TDS, boron, calcium, chloride, and sulfate). The ODEQ was notified of the potential SSIs on July 25, 2019. The ODEQ responded by letter (dated August 20, 2019), and required that Evans either submit an assessment monitoring program or submit an Alternative Source Demonstration (ASD) for the SSIs.
  
3. An ASD was conducted by Evans to address the SSIs. As part of the ASD, select sampling of groundwater and ash was conducted in June and August 2019. The ASD also included an evaluation of boring logs, a comparison between total and dissolved analysis, an evaluation of regional geology/hydrogeology, an evaluation of geochemistry, and an evaluation of rainfall and water table fluctuation. Evidence was presented supporting that the apparent SSIs are attributable to the use of Inter-Well methods to establish background combined with natural variability between the upgradient monitoring well and the compliance wells. Evans proposed replacing the established background levels with revised background levels to account for spatial variability between the compliance wells and the up-gradient background wells. Findings were provided to ODEQ (Exceedances from Detection Monitoring and Alternative Source Demonstration, Altamira-US, LLC., September 26, 2019). Via letter dated November 5, 2019, the ODEQ responded to the Exceedances to Detection Monitoring and Alternative Source Demonstration (Altamira-US, LLC., September 26, 2019). In this letter ODEQ generally agreed with findings of the ASD (that Apparent SSIs over background are attributable to natural variability between upgradient monitoring wells and the compliance wells); with exception of the boron exceedances. Based on this the background as previously established in the 2018 Annual Groundwater and Corrective Action Report (Enviro Clean Cardinal, January 31, 2019) was modified as per the recommendations of the Exceedances from Detection Monitoring and Alternative Source Demonstration (Altamira-US, LLC., September 26, 2019); except for boron.
  
4. Sampling to establish background for GWMP-12A was completed in October 2019 and this monitoring well was incorporated into the Facilities monitoring network. As such the background for detection monitoring parameters as originally established in the 2018 Annual Groundwater and Corrective Action Report and modified as per the recommendations of the Exceedances from Detection Monitoring and Alternative Source

Demonstration (Altamira-US, LLC., September 26, 2019) were again slightly revised to include GWMP-12A as a fourth compliance well in the monitoring network. The revised background for detection monitoring parameters were proposed in the 2019 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2020); Table 4 (Recommended Revisions to Background for Detection Monitoring). The revised background for detection monitoring parameters were approved by ODEQ via letter dated March 23, 2020.

5. In its November 5, 2019 letter, the ODEQ required that Evans provide an assessment monitoring plan and thereafter initiate assessment monitoring in accordance with OAC 252:517-9-6. Evans submitted an Assessment Monitoring Plan to ODEQ on December 10, 2019 (Assessment Monitoring Plan, Altamira-US, LLC; December 10, 2019). The ODEQ approved of the Assessment Monitoring Plan via letter dated January 21, 2020. An assessment monitoring program was established for the facility and notification of assessment monitoring program was provided on January 31, 2020.
6. Assessment monitoring was initiated in 2020, with sampling occurring in March and October . A description of sample activities for the Year 2020 and comparison of Year 2020 groundwater sample data to statistically determined and approved UPLs (for Detection Monitoring parameters) and GWPS (for Assessment Monitoring parameters) were submitted to ODEQ in the 2020 Annual Groundwater and Corrective Action Report (Altamira; January 29, 2021). The ODEQ acknowledged receipt of this submittal via letter dated March 9, 2021. In its letter, the ODEQ requested that Evans *“evaluate whether an SSL exists for molybdenum using background as the GWPS and assess the viability of MW-11A as a background well.”*
7. As per ODEQ’s March 9, 2021 letter, molybdenum from Year 2020 sampling was reevaluated using background as GWPS. From this, an SSL was deemed to exist for molybdenum at MW-9A and MW-12A when using background as the GWPS (even though concentrations are not at SSLs above the EPA-promulgated alternative risk-based groundwater protection standard for molybdenum). Findings were submitted to ODEQ (Reevaluation of Molybdenum Using Background as GWPS (Altamira; May 4, 2021)). The ODEQ acknowledged receipt of this submittal via letter data June 8, 2021.



8. The first 2021 semi-annual assessment monitoring occurred April 2021. From the first 2021 semi-annual monitoring, molybdenum was detected at GWMP-9A and GWMP-12A at concentrations that would be an SSL when using background as the GWPS instead of the previously established GWPS for molybdenum. No other assessment monitoring parameters were detected at SSLs over the GWPS. Findings from the first 2021 semi-annual assessment monitoring and notification of assessment monitoring parameters identified as SSLs were submitted to ODEQ (April 2021 Assessment Monitoring, Notification: Molybdenum concentrations above upgradient well background concentration (Altamira; July 7, 2021)). The ODEQ acknowledged receipt of this submittal via letter dated August 24, 2021. As per this letter, the reported molybdenum concentrations at GWMP-9A and GWMP-12A would not be considered SSLs after proposed regulatory changes to OAC 252:517 become effective (September 15, 2021).
9. Because of the proposed regulatory changes to OAC 252:517, a request for an extension to determine the need for and/or conduct actions pursuant to OAC 252:517(g) and 252:517-9-7 to address the above mentioned SSLs for molybdenum was submitted to ODEQ (Request for Extension Due to Proposed Rule Changes (Altamira; May 21, 2021)). The request was approved by ODEQ via its letter dated June 8, 2021. On September 15, 2021, the proposed changes to OAC 252:517 became effective. Consequently, the reported molybdenum concentrations at GWMP-9A and GWMP-12A were not SSLs and did not require further actions under 252:517-9-6(g) and 252:517-9-7.
10. Monitoring well locations, surface elevations, and top of casing elevations for all monitoring wells were surveyed on May 12, 2021 and groundwater flow was reevaluated using the updated survey information. Findings were provided to ODEQ in the report Resurvey of Monitoring Wells, Reevaluation of Groundwater Flow Direction, and Request to discontinue Quarterly Sampling of GWMP-13A (Altamira; July 9, 2021). From this evaluation GWMP-11A appears to be down-gradient from portions of the CCR Unit. Evan's retracted its previous request to utilize GWMP-11A as an upgradient monitoring well and proposed to utilize GWMP-11 as a compliance monitoring well. It was also requested that monitoring of GWMP-13A be discontinued but gauged for water during semi-annual sampling events. The ODEQ approved the recommendations made in this report via letter dated August 17, 2021.
11. The second 2021 semi-annual assessment monitoring occurred October 2021. No assessment monitoring parameters were detected at SSLs over the established GWPS, as the GWPS for molybdenum was revised to the EPA-promulgated alternative risk-based GWPS (adopted by Oklahoma Rule, effective on September 15, 2021).

12. A description of sample activities for the Year 2021 and comparison of Year 2021 groundwater sample data to statistically determined and approved UPLs (for detection monitoring parameters) and GWPS (for assessment monitoring parameters) were submitted to ODEQ in the 2021 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022). This report proposed changes to background for detection monitoring parameters to incorporate GWMP-11A as a fifth compliance well 2021 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022); Table 7 (Detection Monitoring Parameters – Current Background and Proposed Updates to Background). The ODEQ acknowledged receipt and approval of this submittal via letter dated March 10, 2022.
13. The first 2022 semi-annual assessment monitoring occurred April 2022. The second 2022 semi-annual assessment monitoring occurred in October 2022. No assessment monitoring parameters were detected from either event at SSLs over the GWPS. A description of sample activities for the Year 2022 and comparison of Year 2022 groundwater sample data to statistically determined and approved UPLs (for detection monitoring parameters) and GWPS (for assessment monitoring parameters) were submitted to ODEQ in the 2022 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2023). This report included proposed revisions to the GWPS as described in Section 5.1 of this Report. The ODEQ acknowledged receipt and approval of this submittal via letter dated March 2, 2023.

## **5.0 GROUNDWATER MONITORING / KEY ACTIONS COMPLETED (YEAR 2023)**

### **5.1 SUBMISSION OF 2022 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT**

A description of sample activities for the Year 2023 and comparison of Year 2023 groundwater sample data to statistically determined and approved Upper Prediction Limits (detection monitoring parameters) and GWPS (assessment monitoring parameters) were submitted to ODEQ in the 2022 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2023). This report included proposed revisions to the GWPS to remove historical data for antimony, beryllium, cadmium, and thallium where laboratory detection limits exceeded Federal Drinking Water Standards (MCLs) and to incorporate upgradient monitoring well data through October 2022. The proposed GWPS are included in the 2022 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2023); Table 7 – Proposed Groundwater Protection Standards for Assessment Monitoring Parameters. The ODEQ acknowledged receipt and approval of this submittal via letter dated March 2 2023. A copy of the ODEQ March 2, 2023 letter is included in **Attachment A**.

## 5.2 FIRST 2023 SEMI-ANNUAL ASSESSMENT MONITORING (APRIL 2023)

The first 2023 semi-annual assessment monitoring occurred April 17-25, 2023. Monitoring wells GWMP-6A, GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, and GWMP-12A were sampled and analyzed for both detection and assessment monitoring parameters. Samples for analysis of radium 226+228 were submitted to GEL Laboratories, LLC. Samples for analysis of the other detection and assessment monitoring parameters were submitted to ALS-Global. Laboratory reports for the April 2023 sampling are included in **Attachment B**.

## 5.3 SECOND 2023 SEMI-ANNUAL ASSESSMENT MONITORING (OCTOBER/NOVEMBER 2023)

The second 2023 semi-annual Assessment Monitoring occurred October 23- November 6, 2023. Monitoring wells GWMP-6A, GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, and GWMP-12A were sampled and analyzed for both detection and assessment monitoring parameters. Samples for analysis of radium 226+228 were submitted to GEL Laboratories, LLC. Samples for analysis of the other detection and assessment monitoring parameters were submitted to ALS-Global. Laboratory reports for the October/November 2023 sampling are included in **Attachment B**.

## 5.4 NON-GROUNDWATER RELATED ACTIVITIES IN 2023

Evans also completed activities over the Year 2023 to address deficiencies with the Facilities Run-off / Run-off Control Systems Plan Certification (5 Year update), and to address ODEQ concerns regarding standing water in Cell No. 8. These do not pertain to the groundwater sampling program and are outside the scope of this report. Submittals pertaining to these have been provided to ODEQ separate from the submittals described herein for ODEQ comment and approval.

## 6.0 DEPTH TO GROUNDWATER AND GROUNDWATER FLOW CHARACTERISTICS

Depth to groundwater measurements were obtained from each of the wells (including GWMP-13A) prior to each of the semi-annual sampling events. Depth to groundwater measurements obtained to date are summarized in **Table 2**. A potentiometric surface map was constructed for the April 2023 sampling event (**Figure 2**) and for the October/November 2023 sampling event (**Figure 3**). From these, the predominant direction of groundwater flow from the CCR Unit appears to be towards the north/northeast with a contingent of flow to the west/southwest. Groundwater monitoring well GWMP-6A appears to be hydraulically up-gradient (southeast) of the CCR Unit, monitoring wells GWMP-9A, GWMP-10A, and GWMP-12A appear to be hydraulically down-gradient to the north and northeast of the CCR Unit, and groundwater monitoring well GWMP-8A and GWMP-11A appear to be down-gradient to the west of the CCR Unit.

The groundwater flow rate from April 2023 is estimated to be 0.55 ft/year. The groundwater flow rate from October 2023 is also estimated to be 0.55 ft/year. Groundwater flow rate calculations for April 2023 and October 2023 are included on **Figures 2 and 3**, respectively.

## **7.0 EVALUATION OF 2023 MONITORING DATA**

### **7.1 FIRST 2023 SEMI-ANNUAL ASSESSMENT MONITORING (APRIL 2023)**

In April 2023, the groundwater monitoring system was sampled as part of the first 2023 semi-annual assessment monitoring sample event. Each of the wells for the CCR Unit were sampled for detection and assessment monitoring parameters. Data was evaluated using procedures outlined in the Groundwater Data Evaluation Method Certification (October 15, 2018) and compared to statistically determined and approved UPLs (for detection monitoring parameters) and GWPS (for assessment monitoring parameters).

- Analytical results from the first 2023 semi-annual sampling for detection monitoring parameters were compared to pertinent background levels as proposed in the 2021 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022); Table 7 (Detection Monitoring Parameters Current Background and Proposed Updates to Background). These replace previous background for detection monitoring parameters as established in the 2019 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022). The background from the 2019 Annual Groundwater and Corrective Action Report was revised to incorporate GWMP-11A as a compliance well. **Table 3** compares results from the first 2023 semi-annual sampling of these parameters to the established background levels. From this comparison, potential SSIs over background were indicated at GWMP-8A (for chloride and sulfate), at GWMP-9A (for boron), at GWMP-10A (for boron and fluoride), at GWMP-11A (for chloride), and at GWMP-12A (for boron, calcium, chloride, sulfate, and TDS).
- Analytical results from the first 2023 semi-annual sampling for assessment monitoring parameters were compared to GWPS as established in the 2022 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2023); Table 7 (Proposed Groundwater Protection Standards for Assessment Monitoring Parameters). These replace previous GWPS as established in the 2018 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2019).

The comparison was conducted in accordance with the procedure as outlined in the Groundwater Data Evaluation Method Certification (Saeed Zahrai; October 15, 2018). For each well/parameter combination a trend analysis was completed and a confidence interval was established. Trend analyses and construction of confidence intervals were performed using Sanitas™ and utilizing data (where available) dating to February 2017 (for fluoride), dating to January 2018 (for arsenic, barium, chromium, cobalt, lead, lithium, mercury, molybdenum, selenium, and radium 226+228), and dating to September 2018 (for antimony, beryllium, cadmium, and lithium). If trend analysis indicated a significant increasing trend the confidence level would be established around the trend line. Otherwise, the confidence interval would be established over the collected data for each of the well/parameter combinations. For each of the compliance wells, a parameter was determined to be at an SSL above a GWPS if the lower confidence limit exceeded the established GWPS.

Output from Sanitas™ for the first 2023 semi-annual sampling are included in **Attachment C** of this Report. From the first 2023 semi-annual sampling data the trend analysis did not indicate any significant increasing trends. Therefore, the confidence intervals were constructed over the collected data for each of the well/parameter combinations. **Table 4** compares results from the first 2023 semi-annual sampling of assessment monitoring parameters and calculated confidence intervals to the GWPS. From the first 2023 semi-annual monitoring, no assessment monitoring parameters were detected at SSLs over the GWPS.

## 7.2 SECOND 2023 SEMI-ANNUAL ASSESSMENT MONITORING (OCTOBER/NOVEMBER 2023)

In October/November 2023, the groundwater monitoring system was sampled as part of the second 2023 semi-annual assessment monitoring sample event. Each of the wells for the CCR Unit were sampled for detection and assessment monitoring parameters. Data was evaluated using procedures outlined in the Groundwater Data Evaluation Method Certification (October 15, 2018) and compared to statistically determined and approved UPLs (for detection monitoring parameters) and GWPS (for assessment monitoring parameters).

- Analytical results from the second 2023 semi-annual sampling for detection monitoring parameters were compared to pertinent background levels as established in the 2021 Annual Groundwater and Corrective Action Report (Altamira; January 28, 2022); Table 7 (Detection Monitoring Parameters Current Background and Proposed Updates to Background). **Table 5** compares results from the second 2023 semi-annual sampling of these parameters to the established background levels.

From this comparison, potential SSIs over background were indicated at GWMP-8A (for boron, chloride, and sulfate), at GWMP-9A (for boron and sulfate), at GWMP-10A (for boron and fluoride), at GWMP-11A (for chloride), and at GWMP-12A (for boron, calcium, chloride, fluoride, sulfate, and TDS).

- Analytical results from the second 2023 semi-annual sampling for assessment monitoring parameters were compared to GWPS as established in the as established in the 2022 Annual Groundwater and Corrective Action Report (Altamira; January 31, 2023); Table 7 (Proposed Groundwater Protection Standards for Assessment Monitoring Parameters).

For each well/parameter combination a trend analysis was completed and a confidence interval was established. Trend analyses and construction of confidence intervals were performed using Sanitas™ and utilizing data (where available) dating to February 2017 (for fluoride), dating to January 2018 (for arsenic, barium, chromium, cobalt, lead, lithium, mercury, molybdenum, selenium, and radium 226+228), and dating to September 2018 (for antimony, beryllium, cadmium, and lithium). If trend analysis indicated a significant increasing trend the confidence level would be established around the trend line. Otherwise, the confidence interval would be established over the collected data for each of the well/parameter combinations. For each of the compliance wells, a parameter was determined to be at an SSL above a GWPS if the lower confidence limit exceeded the established GWPS.

Output from Sanitas™ for the second 2023 semi-annual sampling are included in **Attachment D** of this Report. From the second 2023 semi-annual sampling data the trend analysis did not indicate any significant increasing trends. Therefore, the confidence intervals were constructed over the collected data for each of the well/parameter combinations (using all data). **Table 6** compares results from the second 2023 semi-annual sampling of assessment monitoring parameters and calculated confidence intervals to the GWPS. From the second 2023 semi-annual sampling, no assessment monitoring parameters were detected at SSLs above the GWPS.

## 8.0 PROBLEMS ENCOUNTERED

No problems were encountered over the 2023 calendar year. However, several monitoring wells continue to exhibit slow recharge and take multiple days to complete sample collection. Because of insufficient water and slow recharge at GWMP-10A, it was not feasible to measure field pH at GWMP-10A during the second 2023 sampling. For this monitoring well, the laboratory measured

pH is presented in this report and compared to pertinent background. None of the network monitoring wells were decommissioned during the previous year. No new monitoring wells were installed to be part of the monitoring network.

## **9.0 ACTIVITIES FOR UPCOMING YEAR (2024)**

During the 2023 monitoring period SSLs over established background were indicated for some of the Detection Monitoring Parameters. No Assessment Monitoring Parameters were detected at SSLs over the established GWPS. Evans anticipates continued semi-annual Assessment Monitoring of the monitoring system (GWMP-6A, GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A, and GWMP-12A) over the upcoming year. Additionally, Evans will continue gauging groundwater levels at monitoring well GWMP-13A.

Anticipated activities for the Year 2024 are as follows:

January 2024: Submit the 2023 Annual Groundwater Monitoring and Corrective Action Report to ODEQ and enter the report into the facility record.

April 2024: Conduct the first 2024 semi-annual groundwater Assessment Monitoring program sample event. Also conduct water level gauging at GWMP-13A.

October 2024: Conduct the second 2024 semi-annual groundwater Assessment Monitoring program sample event. Also conduct water level gauging at GWMP-13A.

December 2024: Prepare the 2024 Annual Groundwater Monitoring and Corrective Action Report to be provided to ODEQ no later than January 31, 2025.

Detections and concentrations from Assessment Monitoring will continue to be recorded in the facility operating record. If during any sampling event one or more Assessment Monitoring Parameters are detected at an SSL above the GWPSs, a notification of the exceedance(s) will be prepared, and actions will be conducted as per OAC 252:517-9-6(g). In such an occurrence, an assessment of corrective measures will be initiated, or a demonstration will be made that a source other than the CCR unit caused the contamination, or that increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

## FIGURES



# EVANS & ASSOCIATES CONSTRUCTION CO., INC.

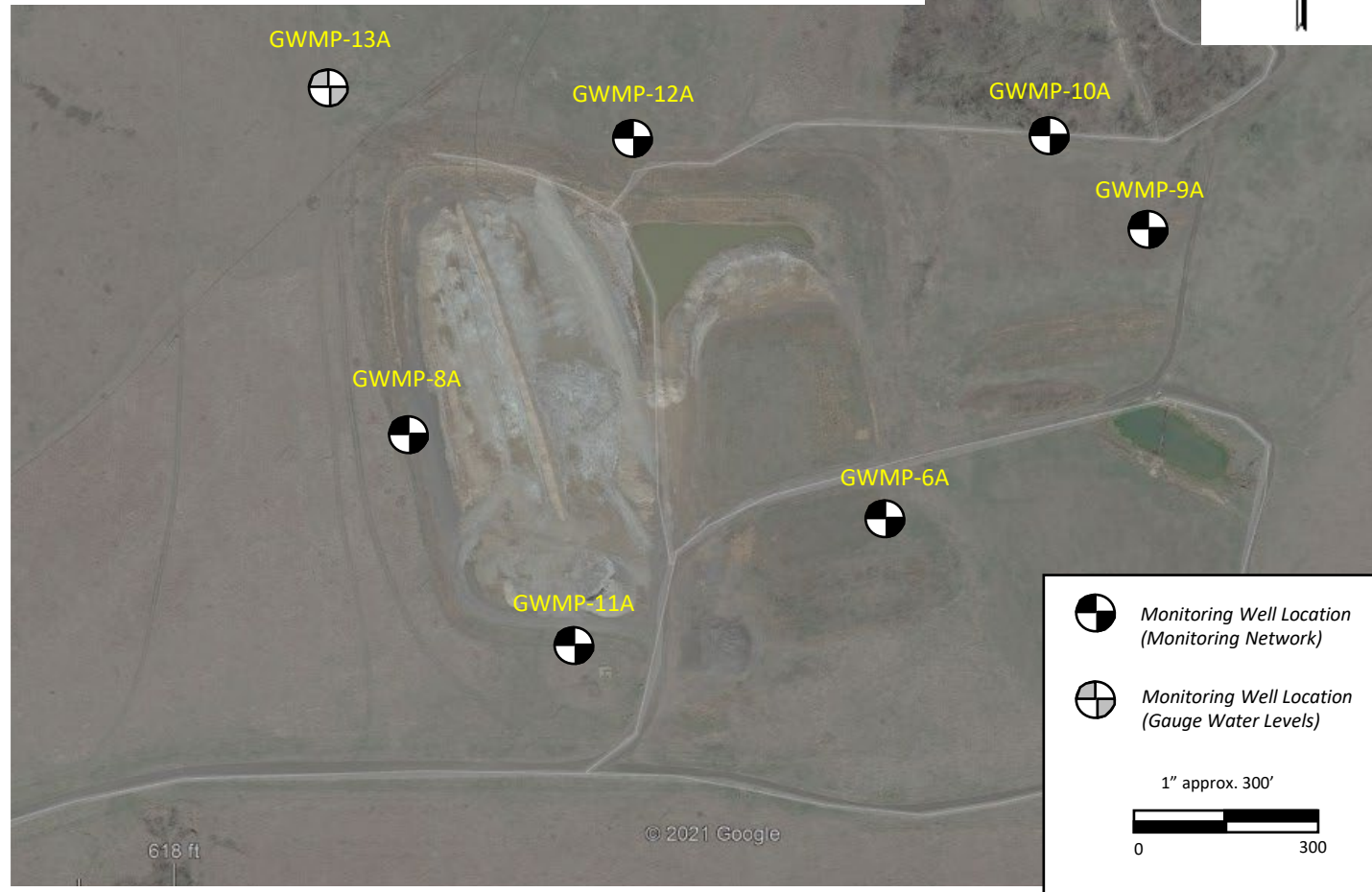
3320 NORTH 14TH STREET, PONCA CITY, OKLAHOMA 74602

FACILITY NAME: BIG FORK RANCH

PREPARED FOR:

Surveyed Monitoring Well Locations

Site Identification	State Plane Coordinates OK North Zone (NAD 83)		Top of PVC Elevation, feet above MSL	Top of Outer Casing Elevation, feet above MSL	Ground Elevation, feet above MSL	(NAD 83)	
	Northing (Y)	Easting (X)				Latitude	Longitude
GWMP #8A	574853.556	2258164.008	1062.97	1063.10	1061.39	36°34'30.42733" N	97°00'48.69240" W
GWMP #9A	575204.046	2259374.208	1034.37	1034.55	1032.72	36°34'33.77110" N	97°00'33.81242" W
GWMP #10A	575353.539	2259217.603	1022.44	1022.66	1020.98	36°34'35.26506" N	97°00'35.71362" W
GWMP #11A	574514.013	2258440.999	1072.17	1072.66	1070.27	36°34'27.04213" N	97°00'45.33904" W
GWMP #12A	575341.281	2258533.003	1046.71	1047.07	1045.00	36°34'35.21282" N	97°00'44.10797" W
GWMP #13A	575428.288	2258030.682	1053.29	1053.87	1051.52	36°34'36.12362" N	97°00'50.25531" W



PROJECT  
EVANS & ASSOCIATES  
BIG FORK RANCH FACILITY

LOCATION  
PONCA CITY, OK  
PREPARED FOR  
EVANS & ASSOCIATES

DRAWING TITLE  
FIGURE 1  
LOCATION OF MONITORING  
WELLS

Project No.  
Drawn By CSS  
Checked By CSS  
Date 01/28/2020/18  
Scale AS SHOWN  
Issued For.  
Drawing No.

 **ALTAMIRA**  
525 Central Park Drive, Suite 500  
Oklahoma City, OK 73105  
Phone 405.842.1066 Fax 405.843.4687

**Figure 1: Location of Monitoring Wells**  
(Base Map: Google Earth Image: Imagery Date 3/30/2019)  
Well locations from May 12, 2021 Survey (Cowan Group Engineering)

# EVANS & ASSOCIATES CONSTRUCTION CO., INC.

3320 NORTH 14TH STREET, PONCA CITY, OKLAHOMA 74602

FACILITY NAME: BIG FORK RANCH

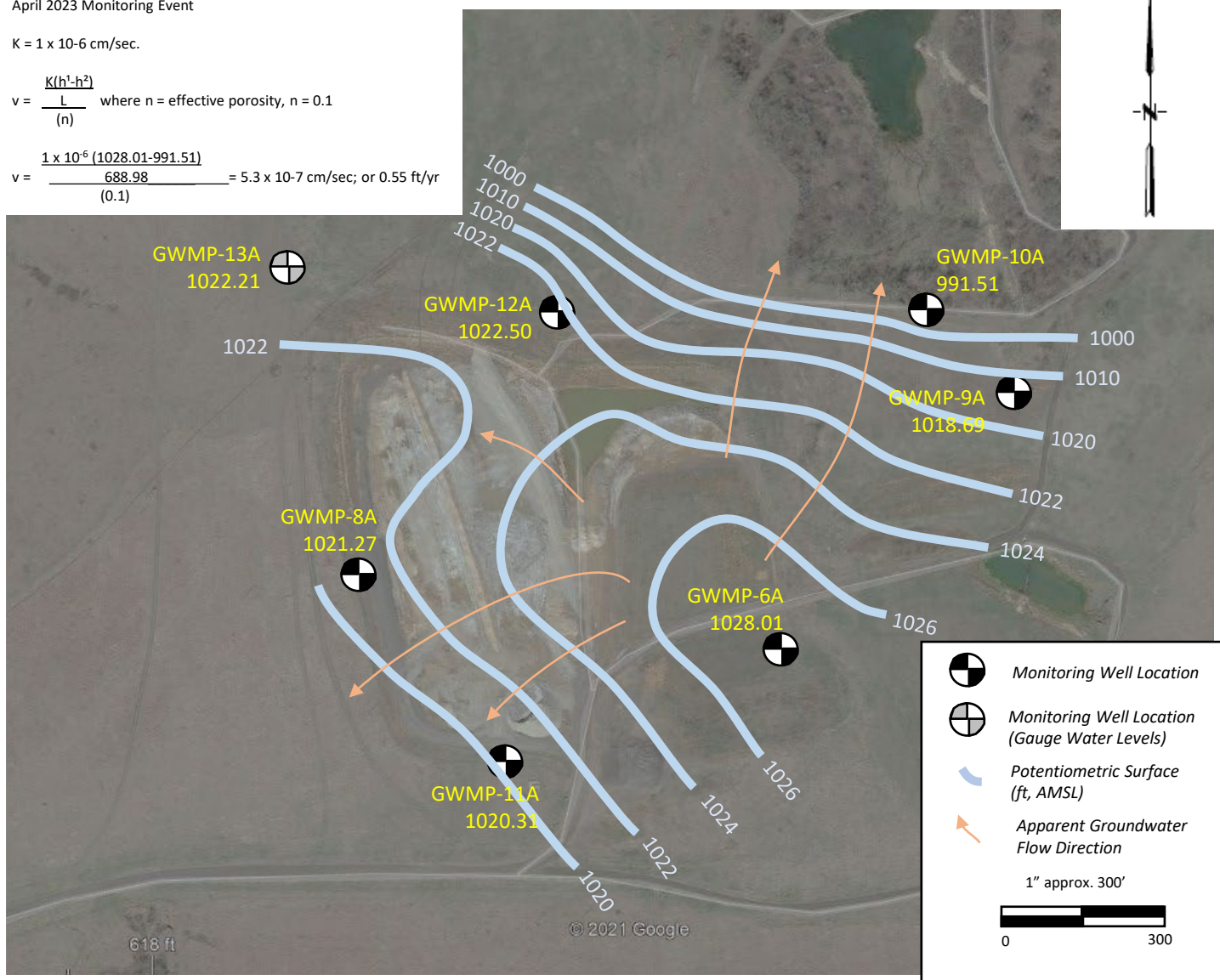
PREPARED FOR:

Calculation of Rate of Groundwater Movement  
April 2023 Monitoring Event

$K = 1 \times 10^{-6}$  cm/sec.

$$v = \frac{K(h^1-h^2)}{L(n)} \text{ where } n = \text{effective porosity, } n = 0.1$$

$$v = \frac{1 \times 10^{-6} (1028.01-991.51)}{688.98(0.1)} = 5.3 \times 10^{-7} \text{ cm/sec; or } 0.55 \text{ ft/yr}$$



PROJECT  
EVANS & ASSOCIATES  
BIG FORK RANCH FACILITY

LOCATION  
PONCA CITY, OK

PREPARED FOR  
EVANS & ASSOCIATES

DRAWING TITLE  
FIGURE 2  
POTENTIOMETRIC SURFACE  
(APRIL 17, 2023)

Project No. \_\_\_\_\_  
Drawn By CSS  
Checked By CSS  
Date \_\_\_\_\_  
Scale AS SHOWN  
Issued For \_\_\_\_\_  
Drawing No. \_\_\_\_\_

**ALTAMIRA**  
525 Central Park Drive, Suite 500  
Oklahoma City, OK 73105  
Phone 405.842.1066 Fax 405.843.4687

**Figure 2: Potentiometric Surface (April 17, 2023)**

(Base Map: Google Earth Image: Imagery Date 3/30/2019)

Well locations from May 12, 2021 Survey (Cowan Group Engineering)

# EVANS & ASSOCIATES CONSTRUCTION CO., INC.

3320 NORTH 14TH STREET, PONCA CITY, OKLAHOMA 74602

FACILITY NAME: BIG FORK RANCH

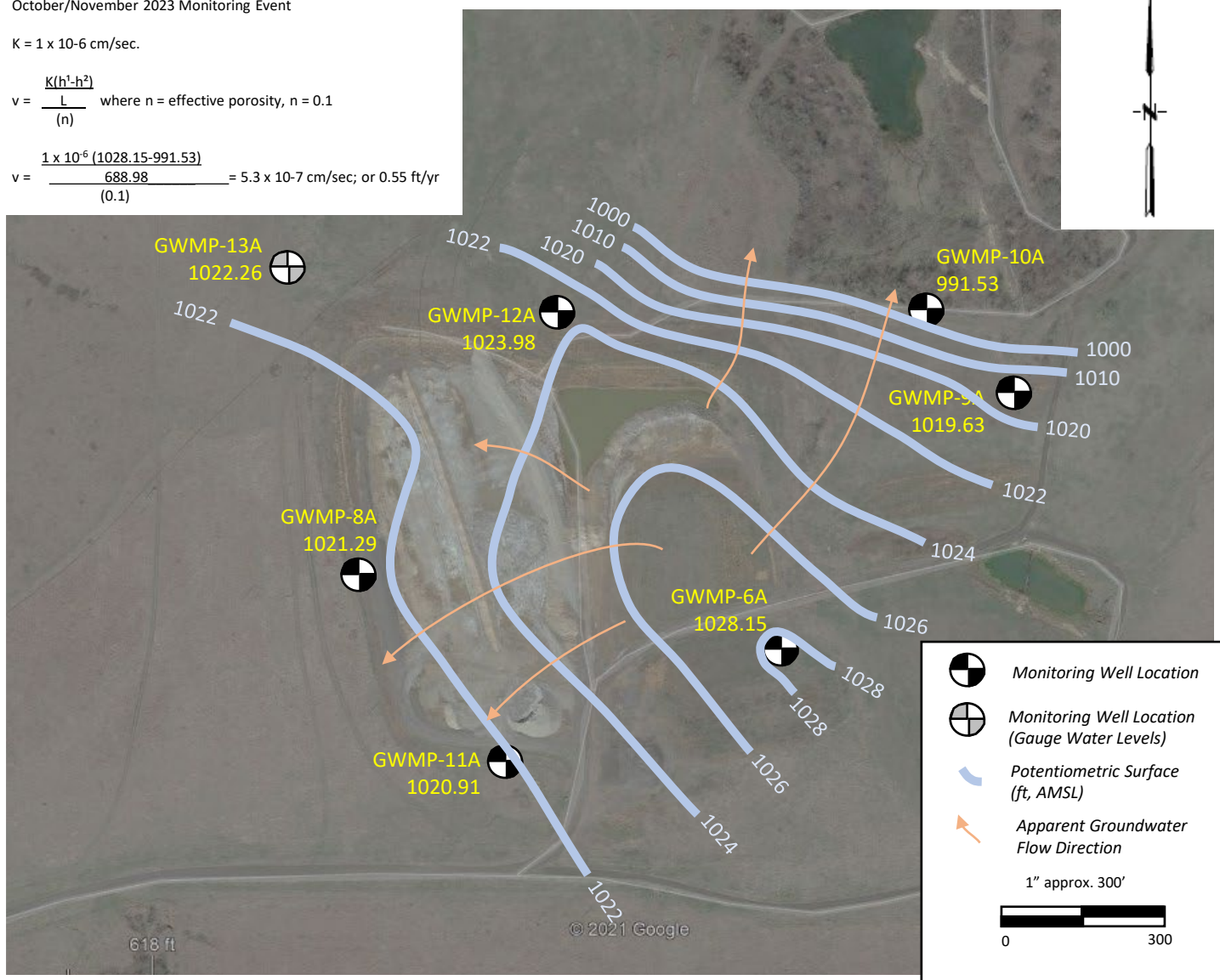
PREPARED FOR:

Calculation of Rate of Groundwater Movement  
October/November 2023 Monitoring Event

$K = 1 \times 10^{-6}$  cm/sec.

$$v = \frac{K(h^1-h^2)}{L} \text{ where } n = \text{effective porosity, } n = 0.1$$

$$v = \frac{1 \times 10^{-6} (1028.15-991.53)}{688.98 (0.1)} = 5.3 \times 10^{-7} \text{ cm/sec; or } 0.55 \text{ ft/yr}$$



PROJECT  
EVANS & ASSOCIATES  
BIG FORK RANCH FACILITY

LOCATION  
PONCA CITY, OK

PREPARED FOR  
EVANS & ASSOCIATES

DRAWING TITLE  
FIGURE 3  
POTENTIOMETRIC SURFACE  
(OCTOBER 23, 2023)

Project No. \_\_\_\_\_  
Drawn By CSS  
Checked By CSS  
Date \_\_\_\_\_  
Scale AS SHOWN  
Issued For \_\_\_\_\_  
Drawing No. \_\_\_\_\_



525 Central Park Drive, Suite 500  
Oklahoma City, OK 73105  
Phone 405.842.1066 Fax 405.843.4687

**Figure 3: Potentiometric Surface (October 23, 2023)**

(Base Map: Google Earth Image: Imagery Date 3/30/2019)

Well locations from May 12, 2021 Survey (Cowan Group Engineering)

## TABLES





**TABLE 1  
SAMPLING SUMMARY  
EVANS AND ASSOCIATES - BIG FORK RANCH  
(2 of 6)**

	Lab	DETECTION MONITORING PARAMETERS								ASSESSMENT MONITORING PARAMETERS													OTHER GENERAL WATER CHEMISTRY							
		pH Field (SU)	TDS (mg/L)	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Ra 226 and 228 (pCi/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	
GWMP-8A	d																													
	DT, Inc.	7.44	352	0.12	63	3.5	0.39	37.21	n/a	n/a	n/a	n/a	n/a	n/a	0.39	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ETI	8.05	422	0.13	84.8	4.55	0.359	30.8	n/a	n/a	n/a	n/a	n/a	n/a	0.359	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ETI	7.20	316	0.111	92.1	4.61	0.346	31.5	n/a	n/a	n/a	n/a	n/a	n/a	0.346	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ETI	7.02	372	0.108	74.7	3.78	0.31	32.3	n/a	n/a	n/a	n/a	n/a	n/a	0.31	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ETI	9.20	354	0.109	38.9	3.57	0.322	31.9	n/a	n/a	n/a	n/a	n/a	n/a	0.322	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ETI	5.82	374	0.11	86.0	3.55	0.344	31.2	<0.01	<0.01	0.298	<0.01	<0.01	0.0111	<0.01	0.344	<0.01	<0.05	<0.0002	<0.01	<0.02	<0.02	<0.02	<0.02	0.9130	n/a	n/a	n/a		
	ETI	6.80	444	0.107	78.3	3.59	0.363	33.1	<0.01	<0.01	0.272	<0.01	<0.01	<0.01	0.363	<0.01	<0.05	<0.0002	<0.01	<0.02	<0.02	<0.02	<0.02	0.9130	n/a	n/a	n/a	n/a		
	ETI	8.21	430	0.108	84.1	3.52	0.396	30.2	<0.010	<0.010	0.290	<0.010	<0.01	<0.010	0.396	<0.010	<0.050	<0.0002	<0.010	<0.020	<0.020	<0.020	0.843	n/a	n/a	n/a	n/a	n/a		
	ETI	7.39	382	0.122	87.2	3.18	0.333	30.8	<0.010	<0.010	0.334	<0.010	<0.01	0.0167	0.0117	0.333	<0.010	<0.050	<0.0002	<0.010	<0.020	<0.020	<0.020	3.16	n/a	n/a	n/a	n/a		
	ETI	7.30	360	0.079	76.0	3.86	0.743	34.0	<0.010	<0.010	0.237	<0.010	<0.01	<0.010	0.743	<0.010	<0.050	<0.0002	<0.010	<0.020	<0.020	<0.020	0.7	n/a	n/a	n/a	n/a	n/a		
	ETI	6.60	362	0.138	134	3.78	0.415	32.2	<0.010	0.0133	0.73	<0.010	<0.01	0.0615	0.0524	0.415	0.0254	<0.050	<0.0002	<0.010	<0.020	<0.020	<0.020	0.423	n/a	n/a	n/a	n/a		
	ETI	7.00	386	0.0953	78.7	3.63	0.352	36.2	0.00108	0.00164	0.274	<0.001	0.00289	0.00783	<0.0100	0.352	0.00232	0.0044	<0.0002	<0.010	0.00509	0.00036	1.397	n/a	n/a	n/a	n/a	n/a		
	Accurate	7.05	n/a	n/a	n/a	n/a	0.38	n/a	<0.005	<0.005	0.265	<0.001	<0.001	<0.010	<0.010	0.38	<0.005	<0.040	<0.00005	<0.005	0.005	<0.001	<0.954	n/a	n/a	n/a	n/a	n/a		
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
	Accurate	7.39	n/a	n/a	n/a	n/a	0.26	n/a	<0.005	<0.005	0.255	<0.001	<0.001	<0.010	<0.010	0.26	<0.005	<0.040	<0.00005	<0.005	0.006	<0.001	<1.145	n/a	n/a	n/a	n/a	n/a		
	Accurate	6.88	n/a	n/a	n/a	n/a	n/a	n/a	<0.005	<0.005	0.265	<0.001	<0.001	<0.010	<0.010	n/a	<0.005	<0.040	<0.00005	<0.005	<0.005	<0.001	<1.05	n/a	n/a	n/a	n/a	n/a		
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
	Accurate	n/a	n/a	n/a	n/a	n/a	0.24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.24	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
	Accurate	6.61	406	0.075	76.5	3.58	0.23	28.4	n/a	n/a	n/a	n/a	n/a	n/a	0.23	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
	Accurate	6.69	364	0.087	77.5	3.15	0.3	31.8	n/a	n/a	n/a	n/a	n/a	n/a	0.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	270	<5	3.15	17.4	0.92	35.1
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Accurate	6.84	343	0.102	118	6.91	0.35	31.3	n/a	n/a	n/a	n/a	n/a	n/a	0.35	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Accurate	6.61	414	0.097	73.1	5.57	0.36	46.6	<0.005	<0.005	0.298	<0.001	<0.001	<0.010	<0.010	0.36	<0.005	<0.040	<0.00015	<0.005	0.018	<0.001	4.373	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.09	328	0.0771	59	5.15	0.122	33.9	<0.0004	0.000833(J)	0.211	<0.0002	<0.0002	0.00323(J)	<0.0002	0.122	<0.0006	0.0102	<0.0003	0.00145(J)	0.0139	<0.0002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.76	398	0.0835	82.4	4.71	0.29	52.9	<0.0004	0.00276	0.357	0.000585(J)	<0.0002	0.0146	0.00589	0.29	0.00706	0.0153	<0.00003	0.000698(J)	0.0132	<0.0002	<0.77	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.52	418	0.121	83	4.58	0.415	54.6	0.000975(J)	0.00288	0.348	0.000347(J)	<0.0002	0.0131	0.00401(J)	0.415	0.00437	0.0204(J)	<0.00003	0.00185(J)*	0.013	0.000252(J)	<1.02	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.64	438	0.0398	88.4	4.25	0.26	43	<0.0004	0.00104(J)	0.412	<0.0002	<0.0002	0.00118(J)	<0.0002	0.26	<0.0006	0.00903	<0.00003(H)	<0.0006	<0.0011	<0.0002	1.51	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.85	392	0.109	91.0	5.18	0.337	49.8	<0.0004	0.00170(J)	0.354	0.000273(J)	<0.0002	0.0111	0.00277(J)	0.337	0.00327	0.0129	<0.00003	0.000879(J)	0.0100	<0.0002	<0.97	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.65	368	0.0999	83.4	7.07	0.266	59.4	<0.0004	0.00148(J)	0.263	<0.0002	<0.0002	0.00993	0.000986(J)	0.266	0.00122(J)	0.00993	<0.00003	0.00157(J)	0.00964	<0.0002	1.14	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.20	350	0.115	77.2	10.1	0.35	53.8	<0.0004	0.00131(J)	0.289	<0.0002	<0.0002	0.00501	0.00142(J)	0.35	0.00615	0.00907	<0.00003	0.000954(J)	0.00943	<0.0002	0.507	n/a	n/a	n/a	n/a	n/a	n/a	
	ALS	7.1	354	0.147	85.9	8.42	0.307	55.2	<0.0004	0.000747(J)	0.286	<0.0002	<0.0002	0.00465	0.00105(J)	0.307	0.00304	0.0102	<0.00003	0.000643(J)	0.00588	<0.0002	1.83	n/a	n/a	n/a	n/a	n/a	n/a	

\* : Dissolved Molybdenum analyzed on 4/27/21 . Dissolved molybdenum = 0.00196(J) mg/L

mg/L : milligrams per liter

pCi/L : PicoCuries per liter

S.U. : Standard Units

< : Analyte not detected at the laboratory Reporting Limit

(J) : Result is less than the Reporting Limit but greater than the Method Detection Limit and the concentration is an approximate value

(H) : Analyzed outside of holding time

n/a : not applicable. Well not analyzed for specified parameter

Shaded areas under Detection Monitoring Parameters indicate sample data incorporated into current background to assess SSIs above background as presented in the 2021 Annual Groundwater and Corrective Action Report (Altamira, January 28, 2022); Table 7 (Detection Monitoring).

Shaded areas under Assessment Monitoring Parameters indicate sample data included in the Trend and Confidence Interval analyses as described in this report.

**TABLE 1  
SAMPLING SUMMARY  
EVANS AND ASSOCIATES - BIG FORK RANCH  
(3 of 6)**

Lab	DETECTION MONITORING PARAMETERS							ASSESSMENT MONITORING PARAMETERS													OTHER GENERAL WATER CHEMISTRY									
	pH Field (SU)	TDS (mg/L)	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Ra 226 and 228 (pCi/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)		
GWMP-9A	d																													
	2/26/2017	DT, Inc.	7.75	496	1.2	35.0	7.5	0.76	93.18	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	7/29/2017	ETI	7.92	530	1.21	35.3	18.8	0.747	111	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	9/10/2017	ETI	7.18	454	1.32	44.8	17.1	0.717	106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/14/2017	ETI	7.19	510	1.36	36.8	16.4	0.679	101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/11/2017	ETI	7.40	516	1.36	73.7	17.7	0.703	96.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/6/2018	ETI	7.24	512	1.43	38.0	16.9	0.729	98.3	<0.01	<0.01	0.0574	<0.01	<0.01	<0.01	<0.01	0.729	<0.01	<0.05	<0.0002	0.0140	<0.02	<0.02	n/a	n/a	n/a	n/a	n/a	n/a	
	3/3/2018	ETI	7.30	526	1.43	35.4	17.0	0.784	106	<0.01	<0.01	0.059	<0.01	<0.01	<0.01	<0.01	0.784	<0.01	<0.05	<0.0002	0.0128	<0.02	<0.02	0.8328	n/a	n/a	n/a	n/a	n/a	
	4/14/2018	ETI	6.11	524	1.36	36.4	17.4	0.822	101	<0.010	<0.010	0.0602	<0.010	<0.01	<0.010	<0.010	0.822	<0.010	<0.050	<0.0002	0.0124	<0.020	<0.020	0.13573	n/a	n/a	n/a	n/a	n/a	
	5/26/2018	ETI	7.62	414	1.37	72.7	15.7	0.702	93.7	<0.010	<0.010	0.149	<0.010	<0.01	0.011	0.010	0.702	0.0114	<0.050	<0.0002	0.0105	<0.020	<0.020	1.005	n/a	n/a	n/a	n/a	n/a	
	6/23/2018	ETI	7.10	520	1.29	37.1	21.2	0.834	104	<0.010	<0.010	0.0597	<0.010	<0.01	<0.010	<0.010	0.834	<0.010	<0.050	<0.0002	0.0117	<0.020	<0.020	0.658	n/a	n/a	n/a	n/a	n/a	
	7/29/2018	ETI	7.30	546	1.48	63.6	18.0	0.850	99.8	<0.010	<0.010	0.161	<0.010	<0.01	<0.010	<0.010	0.85	<0.010	<0.050	<0.0002	<0.010	<0.020	<0.020	1.586	n/a	n/a	n/a	n/a	n/a	
	9/2/2018	ETI	7.27	560	1.39	41.9	17.4	0.735	107	<0.001	0.00158	0.0712	<0.001	<0.001	0.00195	<0.010	0.735	0.00095	0.0136	<0.0002	0.0102	<0.002	<0.002	0.421	n/a	n/a	n/a	n/a	n/a	
	10/19/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/24/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/27/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	12/24/2018	Accurate	7.49	n/a	n/a	n/a	n/a	n/a	n/a	<0.005	<0.005	0.05	<0.001	<0.001	<0.010	<0.010	n/a	<0.005	<0.040	<0.00005	0.011	<0.005	<0.001	<2.288	n/a	n/a	n/a	n/a	n/a	
	1/22/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/30/2019	Accurate	n/a	n/a	n/a	n/a	n/a	0.66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	4/22/2019	Accurate	7.03	583	1.21	37.9	16.4	0.61	138	n/a	n/a	n/a	n/a	n/a	n/a	0.61	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	6/18/2019	Accurate	6.89	541	1.13	39.5	15.9	0.66	145	n/a	n/a	n/a	n/a	n/a	n/a	0.66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	302.8	<5	15.9	21.2	1.51	142
	8/13/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/29/2009	Accurate	7.06	550	1.45	46.1	18.8	0.73	92.4	n/a	n/a	n/a	n/a	n/a	n/a	0.73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/29/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	12/18/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/22/2020	Accurate	7.02	551	1.33	35.4	17.5	0.77	99.4	<0.005	0.013	0.321	0.0016	<0.001	<0.010	0.77	0.01	<0.040	<0.00005	0.008	<0.005	<0.001	2.65	n/a	n/a	n/a	n/a	n/a	n/a	
	4/23/2020	ALS	7.34	558	1.09	33.7	16.2	0.763	101	<0.0004	0.00174(J)	0.061	<0.0002	<0.0002	0.00126(J)	0.000419(J)	0.763	0.00135(J)	0.0275	<0.00003	0.00579	<0.0011	<0.0002	<0.74	n/a	n/a	n/a	n/a	n/a	
	7/22/2020	ALS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/14/2020	ALS	8.19	354	1.2	49.4	16.3	0.574	95.7	<0.0004	0.00248	0.121	0.000391(J)	<0.0002	0.00507	0.00217(J)	0.574	0.00263	0.0227	<0.00003	0.00448(J)	<0.0011	<0.0002	2.21	n/a	n/a	n/a	n/a	n/a	
	4/27/2021	ALS	7.82	562	1.11	34.3	16.3	0.834	99.1	<0.0004	0.00185(J)	0.0711	<0.0002	<0.0002	0.00196(J)	0.000489(J)	0.834	0.000899(J)	0.0202	<0.00003	0.00556*#	<0.0011	<0.0002	<0.83	n/a	n/a	n/a	n/a	n/a	
	10/19/2021	ALS	7.88	506	1.25	30.3	16.3	0.842	89	<0.0004	0.00225	0.0728	<0.0002	<0.0002	0.000462(J)	<0.0002	0.842	<0.0006	0.0195	<0.00003(H)	0.00516^	<0.0011	<0.0002	<0.91	n/a	n/a	n/a	n/a	n/a	
	4/19/2022	ALS	8.26	532	1.33	74.5	16.5	0.828	94.3	<0.0004	0.00151(J)	0.113	0.000369(J)	<0.0002	0.00267(J)	0.00139 J	0.828	0.00334	0.0225	<0.00003	0.00368(J)	<0.0011	<0.0002	<0.94	n/a	n/a	n/a	n/a	n/a	
	10/19/2022	ALS	7.98	510	1.7	60.4	16.4	0.846	98.4	<0.0004	0.00203	0.0925	0.000205(J)	<0.0002	0.00208(J)	0.000853(J)	0.846	0.00170(J)	0.0227	<0.00003	0.00402(J)	<0.0011	<0.0002	0.954	n/a	n/a	n/a	n/a	n/a	
	4/18/2023	ALS	6.27	480	1.23	28.8	17.5	0.62	100	<0.0004	0.00184(J)	0.0547	<0.0002	<0.0002	<0.0004	<0.0002	0.62	<0.0006	0.0172	<0.00003	0.00507	<0.0011	<0.0002	0.718	n/a	n/a	n/a	n/a	n/a	
	11/2/2023	ALS	7.30	456	0.947	32.1	17.3	0.792	123	<0.0004	0.000935(J)	0.0593	<0.0002	<0.0002	<0.0004	0.000345(J)	0.792	0.000731(J)	0.0169	<0.00003	0.00489(J)	<0.0011	<0.0002	3.55	n/a	n/a	n/a	n/a	n/a	

\* : Dissolved Molybdenum analyzed on 4/27/21 . Dissolved molybdenum = 0.00786 mg/L

# : Split sample submitted to ETI on 4/27/21 for analysis of total and dissolved molybdenum. Total Molybdenum = 0.0063 mg/L / Dissolved Molybdenum = 0.0088 mg/L

^ : Split sample submitted to ETI on 10/19/21 for analysis of total and dissolved molybdenum. Total Molybdenum = 0.005 mg/L / Dissolved Molybdenum = 0.0088 mg/L

mg/L : milligrams per liter

pCi/L : PicoCuries per liter

S.U. : Standard Units

< : Analyte not detected at the laboratory Reporting Limit

(J) : Result is less than the Reporting Limit but greater than the Method Detection Limit and the concentration is an approximate value

(H) : Analyzed outside of holding time

n/a : not applicable. Well not analyzed for specified parameter

Shaded areas under Detection Monitoring Parameters indicate sample data incorporated into current background to assess SSI's above background as presented in the 2021 Annual Groundwater and Corrective Action Report (Altamira, January 28, 2022); Table 7 (Detection Monitoring).

Shaded areas under Assessment Monitoring Parameters indicate sample data included in the Trend and Confidence Interval analyses as described in this report.





**TABLE 1  
SAMPLING SUMMARY  
EVANS AND ASSOCIATES - BIG FORK RANCH  
(5 of 6)**

	Lab	DETECTION MONITORING PARAMETERS							ASSESSMENT MONITORING PARAMETERS													OTHER GENERAL WATER CHEMISTRY								
		pH Field (SU)	TDS (mg/L)	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Ra 226 and 228 (pCi/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	
GWMP-11A	u																													
	2/26/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	7/29/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	9/10/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/14/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/11/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/6/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	3/3/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	4/14/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	5/26/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	6/23/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	7/29/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	9/2/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/19/2018	Accurate	7.01	426	0.049	92.5	15.5	0.43	27.5	<0.005	<0.005	0.176	<0.001	<0.001	<0.010	<0.010	0.43	<0.005	<0.040	<0.00005	<0.005	<0.005	<0.001	1.4140	n/a	n/a	n/a	n/a	n/a	
	10/24/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/27/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	12/24/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/22/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/29/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	4/22/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	6/18/2019	Accurate	6.72	686	0.275	150	4.09	0.36	203	<0.005	<0.005	0.338	<0.001	<0.001	<0.010	<0.010	0.360	0.0060	<0.040	<0.00005	<0.005	0.035	<0.001	4.34	n/a	n/a	n/a	n/a	n/a	
	8/13/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/29/2019	Accurate	6.57	418	0.047	76.7	7.28	0.27	31.8	<0.005	0.016	0.765	<0.001	<0.001	<0.010	<0.010	0.27	0.008	<0.040	<0.00005	<0.005	<0.005	<0.001	<1.311	n/a	n/a	n/a	n/a	n/a	
	11/29/2019	Accurate	6.49	410	0.044	245	4.86	0.28	31.6	<0.005	<0.005	0.515	<0.001	<0.001	<0.010	<0.010	0.28	<0.005	<0.040	<0.00005	<0.005	<0.005	<0.001	17.67	n/a	n/a	n/a	n/a	n/a	
	12/18/2019	Accurate	7.06	438	0.04	215	4.98	0.27	34.6	<0.005	<0.005	0.481	<0.001	<0.001	<0.010	<0.010	0.27	<0.005	<0.040	<0.00005	<0.005	<0.005	<0.001	4.65	n/a	n/a	n/a	n/a	n/a	
	1/22/2020	Accurate	6.86	434	0.07	264	4.56	0.29	34.1	<0.005	0.011	0.564	0.0011	<0.001	<0.010	<0.010	0.29	0.005	<0.040	<0.00005	<0.005	<0.005	<0.001	8.85	n/a	n/a	n/a	n/a	n/a	
	4/23/2020	ALS	7.06	440	0.0422	129	4.84	0.219	35.7	<0.0004	0.00142(J)	0.371	<0.0002	<0.0002	0.00236(J)	0.000556(J)	0.219	0.00107(J)	0.0094	<0.00003	<0.0006	<0.0011	<0.0002	3.36	n/a	n/a	n/a	n/a	n/a	
	7/22/2020	ALS	7.52	398	0.084	150	4.37	0.195	40.6	0.000484(J)	0.00303	0.448	0.000390(J)	<0.0002	0.00644	0.00218(J)	0.195	0.00444	0.0114	<0.00003	<0.0006	<0.0011	<0.0002	2.41	n/a	n/a	n/a	n/a	n/a	
	(Duplicate)	n/a	396	0.0654	153	4.43	0.158	41.1	0.000494(J)	0.00278	0.466	0.000433(J)	<0.0002	0.00481	0.00238(J)	0.158	0.00491	0.0114	<0.00003	<0.0006	<0.0011	<0.0002	1.83	n/a	n/a	n/a	n/a	n/a		
	10/14/2020	ALS	7.03	440	0.26	93.4	4.47	0.113	37.3	<0.0004	0.00136(J)	0.332	<0.0002	<0.0002	0.00190(J)	0.000225(J)	0.113	<0.0006	0.00917	<0.00003	<0.0006	<0.0011	<0.0002	2.87	n/a	n/a	n/a	n/a	n/a	
	(Duplicate)	n/a	472	0.0635	759	4.73	0.128	37.5	<0.0004	0.00856	1.03	0.00212	0.000325(J)	0.0212	0.0114	0.128	0.0227	0.0168	<0.00003	<0.0006	0.00120(J)	<0.0002	5.99	n/a	n/a	n/a	n/a	n/a		
	4/27/2021	ALS	7.12	464	0.0856	269	4.58	0.219	41.8	<0.0004	0.00184(J)	0.541	0.000502(J)	<0.0002	0.00306(J)	0.000970(J)	0.219	0.00106(J)	0.00877	<0.00003	<0.0006*#	<0.0011	<0.0002	3.12	n/a	n/a	n/a	n/a	n/a	
	10/18/2021	ALS	7.13	430	0.0904	91.9	4.35	0.265	38.8	<0.0004	0.00117(J)	0.389	<0.0002	<0.0002	0.00121(J)	<0.0002	0.265	<0.0006	0.0092	<0.00003(H)	<0.0006^	<0.0011	<0.0002	<0.95	n/a	n/a	n/a	n/a	n/a	
	4/19/2022	ALS	7.46	430	0.0550	163	4.58	0.214	40.2	<0.0004	0.00206	0.468	0.000322(J)	<0.0002	0.00416	0.00168(J)	0.214	0.00291	0.0110	<0.00003	<0.0006	<0.0011	<0.0002	2.1	n/a	n/a	n/a	n/a	n/a	
	10/18/2022	ALS	7.20	426	0.0653	105	4.09	0.28	41.9	<0.0004	0.00114(J)	0.4	<0.0002	<0.0002	0.00125(J)	0.000270(J)	0.28	<0.0006	0.0097	<0.00003	<0.0006	<0.0011	<0.0002	1.77	n/a	n/a	n/a	n/a	n/a	
	4/18/2023	ALS	6.56	400	0.0377	84.7	6.38	0.243	38.8	<0.0004	0.00111(J)	0.335	<0.0002	<0.0002	<0.0004	0.000209(J)	0.243	<0.0006	0.00839	<0.00003	<0.0006	<0.0011	<0.0002	2.18	n/a	n/a	n/a	n/a	n/a	
	11/2/2023	ALS	6.27	408	0.1030	92.5	4.84	0.182	41.2	<0.0004	0.000810(J)	0.372	<0.0002	<0.0002	0.000405(J)	0.000383(J)	0.182	<0.0006	0.01130	<0.00003	<0.0006	<0.0011	<0.0002	4.51	n/a	n/a	n/a	n/a	n/a	

\* : Dissolved Molybdenum analyzed on 4/27/21 . Dissolved molybdenum = <0.0006 mg/L

# : Split sample submitted to ETI on 4/27/21 for analysis of total and dissolved molybdenum. Total Molybdenum = <0.00186 mg/L / Dissolved Molybdenum = <0.00186 mg/L

^ : Split sample submitted to ETI on 10/18/21 for analysis of total molybdenum. Total Molybdenum = <0.00186 mg/L

mg/L : milligrams per liter

pCi/L : PicoCuries per liter

S.U. : Standard Units

< : Analyte not detected at the laboratory Reporting Limit

(J) : Result is less than the Reporting Limit but greater than the Method Detection Limit and the concentration is an approximate value

(H) : Analyzed outside of holding time

n/a : not applicable. Well not analyzed for specified parameter

Shaded areas under Detection Monitoring Parameters indicate sample data incorporated into current background to assess SSI's above background as presented in the [2021 Annual Groundwater and Corrective Action Report](#) (Altamira, January 28, 2022); Table 7 (Detection Monitoring).

Shaded areas under Assessment Monitoring Parameters indicate sample data included in the Trend and Confidence Interval analyses as described in this report.

**TABLE 1  
SAMPLING SUMMARY  
EVANS AND ASSOCIATES - BIG FORK RANCH  
(6 of 6)**

Lab	DETECTION MONITORING PARAMETERS								ASSESSMENT MONITORING PARAMETERS														OTHER GENERAL WATER CHEMISTRY							
	pH Field (SU)	TDS (mg/L)	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Ra 226 and 228 (pCi/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Chloride (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)		
GWMP-12A	d																													
	2/26/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	7/29/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	9/10/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/14/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/11/2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1/6/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	3/3/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	4/14/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	5/26/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	6/23/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	7/29/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	9/2/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	10/19/2018	Accurate	7.15	3756	8.8	248	69.1	0.62	2220	<0.005	<0.005	0.041	<0.001	<0.001	<0.010	<0.010	0.62	<0.005	0.041	<0.00005	0.027	0.015	<0.001	1.3080	n/a	n/a	n/a	n/a	n/a	n/a
	10/24/2018	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	11/27/2018	Accurate	7.08	4752	11.6	251	61.3	0.78	2560	<0.005	<0.005	0.039	<0.001	<0.001	<0.010	<0.010	0.78	<0.005	<0.040	<0.00005	0.242	0.009	<0.001	<0.832	n/a	n/a	n/a	n/a	n/a	n/a
	12/24/2018	Accurate	6.98	4236	10.3	246	65	0.65	2480	<0.005	<0.005	0.023	<0.001	<0.001	<0.010	<0.010	0.65	<0.005	<0.040	<0.00005	0.117	0.012	<0.001	3.46	n/a	n/a	n/a	n/a	n/a	n/a
	1/22/2019	Accurate	7.01	2388	9.99	354	86.1	0.85	1170	<0.0005	0.009	0.076	<0.001	<0.001	<0.010	0.013	0.85	0.008	<0.040	0.000068	0.106	0.015	<0.001	<1.106	n/a	n/a	n/a	n/a	n/a	n/a
	1/29/2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	4/22/2019	Accurate	6.84	4356	9.3	296	70.8	0.58	2410	<0.005	<0.005	0.051	<0.001	<0.001	<0.010	<0.010	0.58	0.005	<0.040	<0.00005	0.057	<0.005	<0.001	2.141	n/a	n/a	n/a	n/a	n/a	n/a
	6/18/2019	Accurate	6.93	3088	8.09	252	105	0.67	1690	<0.005	<0.005	0.026	<0.001	<0.001	<0.010	<0.010	0.67	<0.005	<0.040	<0.00005	0.030	0.009	<0.001	5.588	n/a	n/a	n/a	n/a	n/a	n/a
	8/13/2019	Accurate	6.90	3338	7.72	265	136	0.66	1980	<0.005	0.007	0.045	0.002	<0.001	<0.010	<0.010	0.66	0.01	<0.040	<0.00005	0.054	0.007	<0.001	n/a	n/a	n/a	n/a	n/a	n/a	
	10/29/2019	Accurate	6.48	3932	8.67	235	91.2	0.74	2540	<0.005	0.01	0.046	0.002	<0.001	<0.010	<0.010	0.74	0.021	<0.040	<0.00005	0.093	0.013	<0.001	<2.885	n/a	n/a	n/a	n/a	n/a	n/a
	11/29/2019	Accurate	6.46	3280	8.78	263	165	0.73	2120	<0.005	<0.005	0.051	<0.001	<0.001	<0.010	<0.010	0.73	0.008	<0.040	<0.00005	0.057	0.011	<0.001	<6.223	n/a	n/a	n/a	n/a	n/a	n/a
	12/18/2019	Accurate	6.85	3728	8.17	281	81.3	0.67	2960	<0.005	<0.005	0.033	0.002	<0.001	<0.010	<0.010	0.67	0.012	<0.040	<0.00005	0.043	0.015	<0.001	<2.648	n/a	n/a	n/a	n/a	n/a	n/a
	1/22/2020	Accurate	6.40	3772	8.31	296	77.8	0.7	2310	<0.005	0.013	0.036	0.0014	<0.001	<0.010	<0.010	0.7	0.013	<0.040	<0.00005	0.048	0.018	<0.001	2.191	n/a	n/a	n/a	n/a	n/a	n/a
	4/23/2020	ALS	6.76	2690	8.57	147	153	0.56	1220	<0.0004	0.00135(J)	0.0241	<0.0002	<0.0002	<0.0004	0.00326(J)	0.56	<0.0006	0.00975	<0.00003	0.0306	0.00158(J)	<0.0002	1.2	n/a	n/a	n/a	n/a	n/a	n/a
	7/22/2020	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	10/13/2020	ALS	7.24	3610	7.31	193	84.3	0.481(J)	2280	<0.0004	0.00798	0.067	0.000258(J)	<0.0002	0.00198(J)	0.00644	0.481(J)	0.00458	0.00301(J)	<0.00003	0.0411	<0.0011	<0.0002	0.86	n/a	n/a	n/a	n/a	n/a	n/a
	4/27/2021	ALS	6.98	2600	6	202	177	0.811	1230	<0.0004	0.00143(J)	0.0256	<0.0002	<0.0002	0.000590(J)	0.00387(J)	0.811	0.000997(J)	0.00528	<0.00003	0.0445*#	<0.0011	<0.0002	1.04	n/a	n/a	n/a	n/a	n/a	n/a
	(Duplicate)	n/a	3550	7.31	210	111	0.769	1890	<0.0004	0.00143(J)	0.0254	<0.0002	<0.0002	0.000513(J)	0.00384(J)	0.769	0.000859(J)	0.00468(J)	<0.00003	0.0607 + !	<0.0011	<0.0002	1.31	n/a	n/a	n/a	n/a	n/a	n/a	
	10/18/2021	ALS	6.96	3820	9.17	254	86.7	0.85	2130	<0.0004	0.0141	0.127	0.000610(J)	0.000234(J)	0.00447	0.0104	0.85	0.0112	0.00444(J)	0.0000610(J)(H)	0.0605^	<0.0011	<0.0002	1.12	n/a	n/a	n/a	n/a	n/a	n/a
	(Duplicate)	n/a	4060	8.93	241	84.4	0.79	2210	<0.0004	0.0127	0.104	0.000517(J)	<0.0002	0.00377(J)	0.00945	0.79	0.0103	0.00415(J)	0.0000500(J)(H)	0.0572	<0.0011	<0.0002	1.01	n/a	n/a	n/a	n/a	n/a	n/a	
	4/18/2022	ALS	7.29	4000	11.0	268	76.4	0.330(J)	2260	<0.0004	0.00439	0.0340	0.000482(J)	<0.0002	0.00344(J)	0.00567	0.330(J)	0.00884	0.00346(J)	0.0000660(J)	0.00822	<0.0011	<0.0002	<0.92	n/a	n/a	n/a	n/a	n/a	n/a
	(Duplicate)	n/a	4020	12.0	286	76.0	0.360(J)	2290	<0.0004	0.00598	0.0693	0.000475(J)	<0.0002	0.00415	0.00616	0.360(J)	0.00957	0.00384(J)	0.0000610(J)	0.0103	<0.0011	<0.0002	<1.03	n/a	n/a	n/a	n/a	n/a	n/a	
	10/18/2022	ALS	6.74	3910	16.0	261	82.4	0.705	2280	<0.0004	0.00512	0.0264	0.000343(J)	0.000205(J)	0.00238(J)	0.0108	0.705	0.00534	0.00444(J)	0.000175(J)	0.0166	<0.0011	<0.0002	2.88	n/a	n/a	n/a	n/a	n/a	n/a
	(Duplicate)	n/a	3870	12.4	295	82.5	0.542	2170	<0.0004	0.00536	0.0246	0.000463(J)	<0.0002	0.00334(J)	0.011	0.542	0.00597	0.00423(J)	0.0000740(J)	0.0141	<0.0011	<0.0002	1.63	n/a	n/a	n/a	n/a	n/a	n/a	
	4/17/2023	ALS	6.45	5410	10.2	271	78	0.448	2590	<0.0004	0.00232	0.0226	<0.0002	<0.0002	0.000811(J)	0.00313(J)	0.448	0.00293	0.00346(J)	<0.00003	0.00582	<0.0011	<0.0002	0.575	n/a	n/a	n/a	n/a	n/a	n/a
	(Duplicate)	n/a	4230	9.8	259	77	0.572	2570	<0.0004	0.0024	0.0307	<0.0002	<0.0002	0.00108(J)	0.00314(J)	0.572	0.00316	0.00351(J)	<0.00003	0.00582	<0.0011	<0.0002	2.94	n/a	n/a	n/a	n/a	n/a	n/a	
	11/2/2023	ALS	6.72	3430	9.85	216	85.4	0.769	2590	<0.0004	0.00166(J)	0.0316	<0.0002	<0.0002	<0.0004	0.00969	0.769	<0.0006	0.00490(J)	<0.00003	0.0263	<0.0011	<0.0002	1.72	n/a	n/a	n/a	n/a	n/a	n/a
	(Duplicate)	n/a	3400	9.87	268	83.4	0.745	2600	<0.0004	0.0118	0.032	0.000270(J)	<0.0002	0.00132(J)	0.0163	0.745	0.00495	0.00504	<0.00003	0.0255	<0.0011	<0.0002	1.52	n/a	n/a	n/a	n/a	n/a	n/a	

\* : Dissolved Molybdenum analyzed on 4/27/21 . Dissolved molybdenum = 0.0576(J) mg/L  
# : Split sample submitted to ETI on 4/27/21 for analysis of total and dissolved molybdenum. Total Molybdenum = 0.0697 mg/L / Dissolved Molybdenum = 0.056 mg/L  
+ : Dissolved Molybdenum analyzed on 4/27/21 . Dissolved molybdenum = 0.0639 mg/L  
! : Split sample submitted to ETI on 4/27/21 for analysis of total and dissolved molybdenum. Total Molybdenum = 0.0376 mg/L / Dissolved Molybdenum = 0.0525 mg/L  
^ : Split sample submitted to ETI on 10/18/21 for analysis of total and dissolved molybdenum. Total Molybdenum = 0.0752 mg/L / Dissolved Molybdenum = 0.0754 mg/L  
mg/L : milligrams per liter  
pCi/L : PicoCuries per liter  
S.U. : Standard Units  
< : Analyte not detected at the laboratory Reporting Limit  
(J) : Result is less than the Reporting Limit

**TABLE 2  
DEPTH TO GROUNDWATER AND POTENTIOMETRIC SURFACE  
EVANS AND ASSOCIATES - BIG FORK RANCH**

Date	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)	Well	Depth to Water (Ft, TOC)	Updated Potentiometric Surface (Feet, MSL)
2/26/2017	FORMER	31.7	1028.59	FORMER	41.7	1021.27	FORMER	12.9	1021.47	FORMER	28.6	993.84	FORMER			FORMER			FORMER		
7/29/2017	T.O.C.	31.2	1029.09	T.O.C.	41.2	1021.77	T.O.C.	12.6	1021.77	T.O.C.	29.8	992.64	T.O.C.			T.O.C.			T.O.C.		
9/10/2017	1055.42	31	1029.29	1057.97	42.4	1020.57	1028.96	12.2	1022.17	1017.59	30.5	991.94	1066.5			1044.2			1051.5		
10/14/2017		32.9	1027.39		40.6	1022.37		12.3	1022.07		29.4	993.04									
11/11/2017	UPDATED	31.6	1028.69	UPDATED	32.4	1030.57	UPDATED	11.5	1022.87	UPDATED	28.6	993.84	UPDATED			1046.71			1053.29		
1/6/2018	T.O.C.	33	1027.29	T.O.C.	41.3	1021.67	T.O.C.	11.4	1022.97	T.O.C.	29.1	993.34	T.O.C.	Well Not Installed		T.O.C.	Well Not Installed		T.O.C.	Well Not Installed	
3/3/2018	1060.29	34.5	1025.79	1062.97	41	1021.97	1034.37	12.7	1021.67	1022.44	28.8	993.64	1072.66								
4/14/2018		32.6	1027.69		40.5	1022.47		13.5	1020.87		29.4	993.04									
5/26/2018		34	1026.29		41	1021.97		14	1020.37		30	992.44									
6/23/2018		33.8	1026.49		41.4	1021.57		12.9	1021.47		30.2	992.24									
7/29/2018		34.6	1025.69		40.9	1022.07		13.3	1021.07		>33	<989.44									
9/2/2018		33.4	1026.89		40.4	1022.57		12.3	1022.07		>33	<989.44									
10/18/2018		33.3	1026.99		45.1	1017.87		12.65	1021.72		31.65	990.79		51.6	1021.06		30.1	1016.61		>32.1	<1021.19
11/27/2018		33	1027.29		43	1019.97		>23.5	<1010.87		>33	<989.44		>56.5	<1016.16		21.6	1025.11		>32.1	<1021.19
12/24/2018		NM	NM		NM	NM		NM	NM		NM	NM		>56.5	<1016.16		NM	NM		>32.1	<1021.19
1/22/2019		NM	NM		NM	NM		NM	NM		NM	NM		>56.5	<1016.16		24.5	1022.21		>32.1	<1021.19
1/29/2019		NM	NM		NM	NM		NM	NM		NM	NM		NM	NM		NM	NM		NM	NM
4/22/2019		32.9	1027.39		41.5	1021.47		12	1022.37		28.1	994.34		>56.5	<1016.16		21.9	1024.81		>32.1	<1021.19
6/18/2019		NM	NM		38	1024.97		8.6	1025.77		23.9	998.54		19.75	1052.91		5.25	1041.46		28.1	1025.19
8/13/2019		31.1	1029.19		40.9	1022.07		11.6	1022.77		29.9	992.54		31.1	1041.56		21.2	1025.51		30.2	1023.09
10/29/2019		31.4	1028.89		41.3	1021.67		11.8	1022.57		29.4	993.04		51	1021.66		21	1025.71		30.5	1022.79
11/29/2019		NM	NM		NM	NM		NM	NM		NM	NM		51.2	1021.46		21.8	1024.91		>32.1	<1021.19
12/16/2019		NM	NM		NM	NM		NM	NM		NM	NM		50.25	1022.41		21.3	1025.41		32	1021.29
1/20/2020		31.9	1028.39		41.5	1021.47		15.5	1018.87		29.4	993.04		51.3	1021.36		22.6	1024.11		30.9	1022.39
4/21/2020		31.04	1029.25		41.54	1021.43		12.02	1022.35		26.98	995.46		51.11	1021.55		21.27	1025.44		30.65	1022.64
7/22/2020		31.41	1028.88		41.41	1021.56		13.67	1020.7		30.55	991.89		51.32	1021.34		22.89	1023.82		30.87	1022.42
10/13/2020		31.66	1028.63		41.43	1021.54		14.05	1020.32		30.83	991.61		51.52	1021.14		23.04	1023.67		30.91	1022.38
1/11/2021		31.38	1028.91		41.52	1021.45		12.69	1021.68		29.18	993.26		51.28	1021.38		20.47	1026.24		30.86	1022.43
4/26/2021		30.68	1029.61		41.23	1021.74		11.78	1022.59		26.15	996.29		50.96	1021.7		20.41	1026.3		30.16	1023.13
10/18/2021		31.42	1028.87		41.34	1021.63		14.08	1020.29		30.63	991.81		51.19	1021.47		22.99	1023.72		30.82	1022.47
4/18/2022		31.89	1028.4		47.02	1015.95		15.16	1019.21		30.62	991.82		51.68	1020.98		23.85	1022.86		31.01	1022.28
10/18/2022		31.64	1028.65		41.59	1021.38		14.70	1019.67		31.01	991.43		51.50	1021.16		23.02	1023.69		30.87	1022.42
4/17/2023		32.28	1028.01		41.70	1021.27		15.68	1018.69		30.93	991.51		52.35	1020.31		24.21	1022.5		31.08	1022.21
10/23/2023		32.14	1028.15		41.68	1021.29		14.74	1019.63		30.91	991.53		51.75	1020.91		22.73	1023.98		31.03	1022.26

Former T.O.C. : Former surveyed elevation for top of casing (ft, MSL)  
Updated T.O.C. : Updated top of casing (ft, MSL) based on May 12, 2021 Survey (Cowan Group Engineering).  
Updated Potentiometric Surface : Updated Potentiometric Surface (ft, MSL) to reflect the May 12, 2021 Survey  
Ft, TOC : Feet below top of casing  
Ft, MSL : Feet above mean sea level  
NM : Depth to water not measured on specified date

TABLE 3  
 FIRST 2023 MONITORING  
 DETECTION MONITORING PARAMETERS  
 COMPARISON TO ESTABLISHED BACKGROUND  
 EVANS AND ASSOCIATES - BIG FORK RANCH

	DETECTION MONITORING PARAMETERS (FROM OAC 252:517 APPENDIX A)													
	Boron		Calcium		Chloride		Fluoride		pH		Sulfate		TDS	
	April 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	April 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	April 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	April 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	April 2023 Assessment Monitoring (S.U.)	Current Established Background (S.U.)	April 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	April 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)
GWMP-6A (BG)	0.136	Not Applicable	101	Not Applicable	1.69	Not Applicable	0.379	Not Applicable	6.25	Not Applicable	61.3	Not Applicable	400	Not Applicable
GWMP-8A	0.115	0.1339	77.2	172	10.1	4.736	0.35	0.5412	7.2	5.314 - 9.331	53.8	40.93	350	540.2
GWMP-9A	1.23	0.1339	28.8	172	17.5	22.33	0.62	0.8852	6.27	6.247 - 8.316	100	114.3	480	601.1
GWMP-10A	4.95	0.1339	132	172	29.6	78.9	0.727	0.5142	6.8	6.031 - 8.187	1,130	1,289	2,250	2,403
GWMP-11A	0.0377	0.1339	84.7	172	6.38	2.825	0.243	0.5142	6.56	6.01 - 7.813	38.8	41.45	400	540.2
GWMP-12A	10.2	0.1339	271	172	78	2.825	0.448	0.5142	6.45	6.363 - 7.48	2,590	41.45	5,410	540.2

Sampling conducted in April 2023

mg/L : milligrams per liter

S.U. : Standard Units

(BG) : Background monitoring well

Not Applicable : Background values to establish SSIs are not applicable to background / upgradient monitoring wells

The established background are as presented in the [2021 Annual Groundwater and Corrective Action Report](#) (Altamira, January 28, 2022); Table 7 (Detection Monitoring Parameters Current Background and Proposed Updates to Background).

**TABLE 4  
FIRST 2023 MONITORING  
ASSESSMENT MONITORING PARAMETERS  
COMPARISON TO ESTABLISHED GWPS  
EVANS AND ASSOCIATES - BIG FORK RANCH**

ASSESSMENT MONITORING PARAMETERS (FROM OAC 252:517 APPENDIX B)																								
	Antimony			Arsenic			Barium			Beryllium			Cadmium			Chromium			Cobalt			Fluoride		
	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)
GWMP-6A (BG)	<0.0004	Not Applicable	0.006 (MCL)	0.00124(J)	Not Applicable	0.01875 (UTL)	0.266	Not Applicable	2 (MCL)	<0.0002	Not Applicable	0.004 (MCL)	<0.0002	Not Applicable	0.005 (MCL)	<0.0004	Not Applicable	0.1 (MCL)	<0.0002	Not Applicable	0.12 (UTL)	0.379	Not Applicable	4 (MCL)
GWMP-8A	<0.0004	0.0004 - 0.005		0.00131(J)	0.001156- 0.002924		0.289	0.263 - 0.354		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.00289		0.00501	0.00783 - 0.0131		0.00142(J)	0.00142 - 0.0117		0.35	0.29 - 0.363	
GWMP-9A	<0.0004	0.0004 - 0.005		0.00184(J)	0.00174 - 0.01		0.0547	0.0574 - 0.149		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.001		<0.0004	0.00126 - 0.01		<0.0002	0.000419 - 0.01		0.62	0.7006 - 0.7826	
GWMP-10A	0.000943(J)	0.0004 - 0.005		0.00976	0.0064 - 0.011		0.117	0.04636 - 0.2142		0.000252(J)	0.0002 - 0.00368		<0.0002	0.0002 - 0.001		0.00443	0.001191 - 0.006319		0.0106	0.005193 - 0.01649		0.727	0.4191 - 0.5783	
GWMP-11A	<0.0004	0.0004 - 0.005		0.00111(J)	0.001181- 0.003745		0.335	0.3389-0.5358		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.001		<0.0004	0.00125 - 0.01		0.000209(J)	0.000225 - 0.01		0.243	0.2077 - 0.3134	
GWMP-12A	<0.0004	0.0004 - 0.005		0.00232	0.002472 - 0.006841		0.0226	0.02964 - 0.05205		<0.0002	0.000258 - 0.0014		<0.0002	0.0002 - 0.001		0.000811(J)	0.00198 - 0.01		0.00313(J)	0.00567 - 0.0104		0.448	0.5734 - 0.7416	
ASSESSMENT MONITORING PARAMETERS (FROM OAC 252:517 APPENDIX B)																								
	Lead			Lithium			Mercury			Molybdenum			Selenium			Thallium			Ra-226 + Ra-228 (combined)					
	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (mg/L)	Confidence Interval (mg/L)	GWPS (mg/L)	April 2023 Assessment Monitoring (pCi/L)	Confidence Interval (pCi/L)	GWPS (pCi/L)			
GWMP-6A (BG)	<0.0006	Not Applicable	0.2741 (UTL)	0.00555	Not Applicable	0.06675 (UTL)	<0.000300	Not Applicable	0.002 (MCL)	<0.0006	Not Applicable	0.100 (ODEQ)	0.00805	Not Applicable	0.05 (MCL)	<0.0002	Not Applicable	0.002 (MCL)	4.68	Not Applicable	5.888 (UTL)			
GWMP-8A	0.00615	0.001273 - 0.005565		0.00907	0.00993 - 0.05		<0.00003	0.00003 - 0.0002		0.00943	0.00509 - 0.02		<0.0002	0.0002 - 0.001		0.507	0.5911 - 1.393							
GWMP-9A	<0.0006	0.000899 - 0.01		0.0172	0.0195 - 0.05		<0.00003	0.00003 - 0.0002		0.00507	0.005567 - 0.01018		<0.0011	0.0011 - 0.02		0.718	0.4461 - 1.293							
GWMP-10A	0.00574	0.002549 - 0.01152		0.00553	0.00346 - 0.05		<0.00003	0.00003 - 0.0002		0.0134	0.002875 - 0.01122		<0.0011	0.0011 - 0.02		0.73	0.77 - 1.792							
GWMP-11A	<0.0006	0.0006 - 0.005		0.00839	0.00917 - 0.04		<0.00003	0.00003 - 0.00005		<0.0006	0.0006 - 0.005		<0.0011	0.0011 - 0.005		2.18	1.394 - 5.604							
GWMP-12A	0.00293	0.0032 - 0.009628		0.00346(J)	0.00444 - 0.04		<0.00003	0.00003 - 0.000061		0.00582	0.0279- 0.08125		<0.0011	0.0011 - 0.013		0.575	0.872 - 2.229							

Sampling conducted in April 2023  
mg/L : milligrams per liter  
pCi/L : PicoCuries per liter  
(BG) : Background / upgradient monitoring well  
Not Applicable : Comparison to GWPSs are not applicable to background / upgradient monitoring wells

The GWPS are as presented in the 2022 Annual Groundwater and Corrective Action Report (Altamira-US, LLC, January 31, 2023); Table 7 (Proposed Groundwater Protection Standards for Assessment Monitoring Parameters)  
(UTL) : The GWPS is upper tolerance limit from pooled background data from upgradient / background well  
(MCL) : The GWPS is Federal Drinking Water Standard / (Tap Water Standard for lead)  
(ODEQ) : GWPS is risk-based GWPS adopted by ODEQ on September 15, 2021

TABLE 5  
SECOND 2023 MONITORING  
DETECTION MONITORING PARAMETERS  
COMPARISON TO ESTABLISHED BACKGROUND  
EVANS AND ASSOCIATES - BIG FORK RANCH

	DETECTION MONITORING PARAMETERS (FROM OAC 252:517 APPENDIX A)													
	Boron		Calcium		Chloride		Fluoride		pH		Sulfate		TDS	
	Oct/Nov 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	Oct/Nov 2023 Assessment Monitoring (S.U.)	Current Established Background (S.U.)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Current Established Background (mg/L)
GWMP-6A (BG)	0.132	Not Applicable	98.1	Not Applicable	2.74	Not Applicable	0.394	Not Applicable	6.6	Not Applicable	75.1	Not Applicable	384	Not Applicable
GWMP-8A	0.147	0.1339	85.9	172	8.42	4.736	0.307	0.5412	7.1	5.314 - 9.331	55.2	40.93	354	540.2
GWMP-9A	0.947	0.1339	32.1	172	17.3	22.33	0.792	0.8852	7.3	6.247 - 8.316	123	114.3	456	601.1
GWMP-10A	2	0.1339	122	172	31.8	78.9	0.696	0.5142	7.85 +	6.031 - 8.187	1,110	1,289	1,770	2,403
GWMP-11A	0.103	0.1339	92.5	172	4.84	2.825	0.182	0.5142	6.27	6.01 - 7.813	41.2	41.45	408	540.2
GWMP-12A	9.85	0.1339	216	172	85.4	2.825	0.769	0.5142	6.72	6.363 - 7.48	2,590	41.45	3,430	540.2

Sampling conducted in October/November 2023

mg/L : milligrams per liter

S.U. : Standard Units

(BG) : Background monitoring well

+ : Not sufficient sample from November 2023 sampling to obtain field measurement. Listed pH is from laboratory analysis.

Not Applicable : Background values to establish SSIs are not applicable to background / upgradient monitoring wells

The established background are as presented in the [2021 Annual Groundwater and Corrective Action Report](#) (Altamira, January 28, 2022); Table 7 (Detection Monitoring Parameters Current Background and Proposed Updates to Background).



TABLE 6  
SECOND 2023 MONITORING  
ASSESSMENT MONITORING PARAMETERS  
COMPARISON TO ESTABLISHED GWPS  
EVANS AND ASSOCIATES - BIG FORK RANCH

ASSESSMENT MONITORING PARAMETERS (FROM OAC 252:517 APPENDIX B)																															
Oct/Nov 2023 Assessment Monitoring (mg/L)	Antimony		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Arsenic		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Barium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Beryllium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Cadmium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Chromium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Cobalt		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Fluoride		GWPS (mg/L)
	Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)	
GWMP-6A (BG)	<0.0004	Not Applicable	0.006 (MCL)	0.000810(J)	Not Applicable	0.01875 (UTL)	0.262	Not Applicable	2 (MCL)	<0.0002	Not Applicable	0.004 (MCL)	<0.0002	Not Applicable	0.005 (MCL)	<0.0002	Not Applicable	0.1 (MCL)	<0.0004	Not Applicable	0.000708(J)	Not Applicable	0.12 (UTL)	0.000708(J)	Not Applicable	0.394	Not Applicable	4 (MCL)	0.394	Not Applicable	0.29 - 0.363
GWMP-8A	<0.0004	0.0004 - 0.005		0.000747(J)	0.001106 - 0.002392		0.286	0.263 - 0.354		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.001		0.00465	0.00501 - 0.0131		0.00105(J)	0.00105 - 0.0117		0.307		0.29 - 0.363							
GWMP-9A	<0.0004	0.0004 - 0.005		0.000935(J)	0.00174 - 0.01		0.0593	0.0591 - 0.121		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.001		<0.0004	0.00126 - 0.01		0.000345(J)	0.000419 - 0.01		0.792		0.7041 - 0.7832							
GWMP-10A	0.000457(J)	0.000431 - 0.005		0.00224	0.005 - 0.011		0.0673	0.045 - 0.174		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.001		0.00206(J)	0.00141 - 0.004725		0.00294(J)	0.004697 - 0.01534		0.696		0.4302 - 0.588							
GWMP-11A	<0.0004	0.0004 - 0.005		0.000810(J)	0.001101 - 0.003405		0.372	0.3415 - 0.5245		<0.0002	0.0002 - 0.001		<0.0002	0.0002 - 0.001		0.000405(J)	0.00121 - 0.01		0.000383(J)	0.000225 - 0.01		0.182		0.2047 - 0.306							
GWMP-12A	<0.0004	0.0004 - 0.005		0.00166(J)	0.002343 - 0.006462		0.0316	0.02975 - 0.05068		<0.0002	0.000258 - 0.0014		<0.0002	0.0002 - 0.001		<0.0004	0.000811 - 0.01		0.00969	0.00567 - 0.0104		0.769		0.5829 - 0.7439							
ASSESSMENT MONITORING PARAMETERS (FROM OAC 252:517 APPENDIX B)																															
Oct/Nov 2023 Assessment Monitoring (mg/L)	Lead		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Lithium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Mercury		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Molybdenum		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Selenium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Thallium		GWPS (mg/L)	Oct/Nov 2023 Assessment Monitoring (mg/L)	Ra-226 + Ra-228 (combined)		GWPS (pCi/L)				
	Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)			Confidence Interval (mg/L)	Confidence Interval (mg/L)		Confidence Interval (pCi/L)	Confidence Interval (pCi/L)		
GWMP-6A (BG)	0.00152(J)	Not Applicable	0.2741 (UTL)	0.00761	Not Applicable	0.06675 (UTL)	<0.000300	Not Applicable	0.002 (MCL)	0.000616(J)	Not Applicable	0.100 (ODEQ)	0.00901	Not Applicable	0.05 (MCL)	<0.0002	Not Applicable	0.002 (MCL)	<0.0002	Not Applicable	0.326	Not Applicable	5.888 (UTL)	0.326	Not Applicable	1.83	0.6253 - 1.43				
GWMP-8A	0.00304	0.001422 - 0.005456		0.0102	0.00993 - 0.05		<0.00003	0.00003 - 0.0002		0.000643(J)	0.000879 - 0.01		<0.0011	0.0011 - 0.02		0.00588	0.00509 - 0.02		<0.0002	0.0002 - 0.001		3.55		0.4852 - 1.516							
GWMP-9A	0.000731(J)	0.000899 - 0.01		0.0169	0.0195 - 0.05		<0.00003	0.00003 - 0.0002		0.00489(J)	0.00489 - 0.0117		<0.0011	0.0011 - 0.02		<0.0002	0.0002 - 0.001		2.37	0.8433 - 1.678											
GWMP-10A	0.00274	0.00255 - 0.01046		0.00652	0.00346 - 0.05		<0.00003	0.00003 - 0.0002		0.0129	0.003224 - 0.01142		<0.0011	0.0011 - 0.02		<0.0002	0.0002 - 0.001		4.51	1.538 - 5.511											
GWMP-11A	<0.0006	0.0006 - 0.005		0.0113	0.00917 - 0.04		<0.00003	0.00003 - 0.00005		<0.0006	0.0006 - 0.005		<0.0011	0.0011 - 0.005		<0.0002	0.0002 - 0.001		1.72	0.9214 - 2.2											
GWMP-12A	<0.0006	0.002862 - 0.009179		0.00490(J)	0.00444 - 0.04		<0.00003	0.00003 - 0.000061		0.0263	0.02773 - 0.07774		<0.0011	0.0011 - 0.013		<0.0002	0.0002 - 0.001														

Sampling conducted in October/November 2023  
mg/L : milligrams per liter  
pCi/L : PicoCuries per liter  
(BG) : Background / upgradient monitoring well  
Not Applicable : Comparison to GWPSs are not applicable to background / upgradient monitoring wells

The GWPS are as presented in the 2022 Annual Groundwater and Corrective Action Report (Altamira-US, LLC, January 31, 2023); Table 7 (Proposed Groundwater Protection Standards for Assessment Monitoring Parameters)  
(UTL) : The GWPS is upper tolerance limit from pooled background data from upgradient / background well  
(MCL) : The GWPS is Federal Drinking Water Standard / (Tap Water Standard for lead)  
(ODEQ) : GWPS is risk-based GWPS adopted by ODEQ on September 15, 2021

**ATTACHMENTS**



# **ATTACHMENT A**

**ODEQ LETTER  
(MARCH 2, 2023)**

**RESPONSE LETTER TO 2022 ANNUAL GROUNDWATER AND CORRECTIVE ACTION REPORT**

March 2, 2023

Mr. Lee Evans  
Evans & Associates Construction Company, Inc.  
P.O. Box 30  
Ponca City, OK 74602

Re: 2022 Annual Groundwater Monitoring and Corrective Action Report,  
Big Fork Ranch Coal Combustion Residuals (CCR) Landfill, Noble County  
Solid Waste Permit No. 3552014

Dear Mr. Evans:

The Oklahoma Department of Environmental Quality (DEQ) received the 2022 Annual Groundwater Monitoring and Corrective Action Report (Report) dated January 31, 2023. The Report was submitted by Altamira-US, LLC on behalf of Evans and Associates Construction Company, Inc. (Evans).

The Report includes all groundwater data collected under OAC 252:517 and documents the status of the groundwater monitoring and corrective action program for the CCR units, summarizes key actions completed in 2022, and presents key activities for 2022. Groundwater monitoring in 2022 was conducted under the assessment monitoring program and samples were collected in April and October.

The groundwater monitoring network at Big Fork Ranch CCR Landfill (Big Fork) consists of upgradient well GWMP-6A and downgradient wells GWMP-8A, GWMP-9A, GWMP-10A, GWMP-11A and GWMP-12A. Groundwater flow appears to be to the north/ northeast with a contingent of flow to the west/ southwest. The groundwater flow rate is estimated to be 0.55 ft/year during the April 2022 monitoring event, and 0.56 ft/ year at the October 2022 monitoring event towards the northeast.

New monitor wells GWMP-11A, GWMP-12A, and GWMP-13A were installed at the facility on September 26, 2018 for potential inclusion to the monitoring network. Sampling to establish background has been completed at GWMP-11A and GWMP-12A. Monitoring well GWMP-13A did not recover sufficient water for sampling at any event in 2021; and has been sampled only once since its installation. In a letter dated August 17, 2021, DEQ approved discontinuing sampling at GWMP-13A (except water levels at semi-annual events) and incorporating GWMP-11A as a compliance well. Background was recalculated for detection monitoring parameters at each of the compliance monitoring wells to incorporate GWMP-11A as a fifth compliance well.

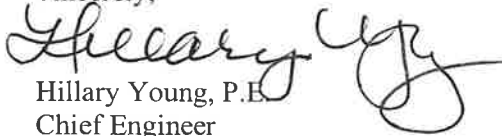
Data collected prior to September 2018 were non-detect for antimony, beryllium, cadmium, and thallium, which was used in calculating the current groundwater protection standards (GWPS). The GWPS for antimony, beryllium, cadmium, and thallium have been reevaluated after removing data prior to September 2018 from background. A modified GWPS is proposed for the future statistical analysis of antimony. It is proposed that only data after September 2018 be used for future statistical evaluation of antimony, beryllium, cadmium, and thallium. Modifications to the GWPS are also proposed for arsenic, barium, cobalt, lead, lithium, and radium, based on updated prediction limits determined after incorporating upgradient monitoring data through October 2022.

Mr. Lee Evans  
Evans & Associates Construction Company, Inc.  
March 2, 2023  
Page 2 of 2

Two assessment monitoring events occurred in 2022 for Appendix A and B parameters. Statistical analysis was conducted on all data sets with inter- and intra-well analysis conducted for Appendix A parameters to determine statistically significant increases (SSIs) over background. Appendix B parameters concentrations were compared to the GWPS to determine statistically significant levels (SSLs) above their GWPS. The GWPS for certain constituents listed in 252:517 Appendix B were recalculated based on DEQ rule changes effective September 2021. A trend analysis was conducted for each well/ constituent combination and a confidence interval established for all 2022 Appendix B constituents. A statistically significant level (SSL) above a GWPS is determined if the lower confidence limit for an Appendix B constituent exceeds the established GWPS. There were no SSLs detected for the 2022 assessment monitoring program.

The Report meets the requirements of OAC 252:517-9-1(e). It is noted that the Report has been placed on Big Fork's publicly accessible website. Should you have any questions, please contact Kaylee Daneshmand at (405) 702-5196 or [Kaylee.daneshmand@deq.ok.gov](mailto:Kaylee.daneshmand@deq.ok.gov).

Sincerely,



Hillary Young, P.E.  
Chief Engineer  
Land Protection Division

HY/kd

cc: Chris Schaefer, Hydrogeologist, Altamira- US, LLC  
Saeed Zahrai, P.E., EMERA Corporation

## **ATTACHMENT B**

**LABORATORY REPORTS (YEAR 2023)**

**FIRST 2023 GROUNDWATER SAMPLING EVENT  
APRIL 2023**



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10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

May 08, 2023

Heather Tiffany  
Altamira  
525 central park Dr  
Suite 500  
Oklahoma City, OK 73013

Work Order: **HS23041342**

Laboratory Results for: **Evans & Associates, Big Fork Ranch CCR AM**

Dear Heather Tiffany,

ALS Environmental received 12 sample(s) on Apr 21, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

Anna Kinchen  
Project Manager

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**Work Order:** HS23041342

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23041342-01	GWMP 11A	Water		18-Apr-2023 11:32	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-02	GWMP 6A	Water		18-Apr-2023 11:05	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-03	GWMP 8A	Water		18-Apr-2023 09:50	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-04	GWMP 10A	Water		18-Apr-2023 10:30	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-05	GWMP 12A	Water		17-Apr-2023 13:45	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-06	GWMP 9A	Water		18-Apr-2023 10:40	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-07	DUP 1	Water		17-Apr-2023 13:45	21-Apr-2023 10:25	<input type="checkbox"/>
HS23041342-08	GWMP 11A Filtered	Water		18-Apr-2023 11:32	21-Apr-2023 10:25	<input checked="" type="checkbox"/>
HS23041342-09	GWMP 6A Filtered	Water		18-Apr-2023 11:05	21-Apr-2023 10:25	<input checked="" type="checkbox"/>
HS23041342-10	GWMP 12A Filtered	Water		17-Apr-2023 13:45	21-Apr-2023 10:25	<input checked="" type="checkbox"/>
HS23041342-11	GWMP 9A Filtered	Water		18-Apr-2023 10:40	21-Apr-2023 10:25	<input checked="" type="checkbox"/>
HS23041342-12	DUP 1 Filtered	Water		17-Apr-2023 13:45	21-Apr-2023 10:25	<input checked="" type="checkbox"/>

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**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**Work Order:** HS23041342

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**CASE NARRATIVE**

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**Work Order Comments**

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.  
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.
- 

**Metals by Method SW7470A**

**Batch ID: 193448**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
- 

**Metals by Method SW6020A**

**Batch ID: 193317**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
- 

**WetChemistry by Method SM4500H+ B**

**Batch ID: R434518**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
- 

**WetChemistry by Method E300**

**Batch ID: R434432**

**Sample ID: GWMP 11A (HS23041342-01MS)**

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference. (Sulfate)
- 

**WetChemistry by Method M2540C**

**Batch ID: R433524,R433640,R433652**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-



Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: GWMP 11A  
 Collection Date: 18-Apr-2023 11:32

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	U		0.000400	0.00200	mg/L	1	04-May-2023 14:14
<b>Arsenic</b>	<b>0.00111</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:14
<b>Barium</b>	<b>0.335</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:14
Beryllium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:14
<b>Boron</b>	<b>0.0377</b>		<b>0.0110</b>	<b>0.0200</b>	<b>mg/L</b>	1	04-May-2023 14:14
Cadmium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:14
<b>Calcium</b>	<b>84.7</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 14:14
Chromium	U		0.000400	0.00400	mg/L	1	04-May-2023 14:14
<b>Cobalt</b>	<b>0.000209</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:14
Lead	U		0.000600	0.00200	mg/L	1	04-May-2023 14:14
<b>Lithium</b>	<b>0.00839</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:14
Molybdenum	U		0.000600	0.00500	mg/L	1	04-May-2023 14:14
Selenium	U		0.00110	0.00200	mg/L	1	04-May-2023 14:14
Thallium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:14
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	05-May-2023 16:34
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>6.38</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 09:55
<b>Fluoride</b>	<b>0.243</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	04-May-2023 09:55
<b>Sulfate</b>	<b>38.8</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 09:55
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	400		5.00	10.0	mg/L	1	25-Apr-2023 16:00
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.32	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	20.1	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: GWMP 6A  
 Collection Date: 18-Apr-2023 11:05

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-02  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	U		0.000400	0.00200	mg/L	1	04-May-2023 14:29
<b>Arsenic</b>	<b>0.00124</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:29
<b>Barium</b>	<b>0.266</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:29
Beryllium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:29
<b>Boron</b>	<b>0.136</b>		<b>0.0110</b>	<b>0.0200</b>	<b>mg/L</b>	1	04-May-2023 14:29
Cadmium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:29
<b>Calcium</b>	<b>101</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 14:29
Chromium	U		0.000400	0.00400	mg/L	1	04-May-2023 14:29
Cobalt	U		0.000200	0.00500	mg/L	1	04-May-2023 14:29
Lead	U		0.000600	0.00200	mg/L	1	04-May-2023 14:29
<b>Lithium</b>	<b>0.00555</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:29
Molybdenum	U		0.000600	0.00500	mg/L	1	04-May-2023 14:29
<b>Selenium</b>	<b>0.00805</b>		<b>0.00110</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:29
Thallium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:29
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	05-May-2023 16:36
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>1.69</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:00
<b>Fluoride</b>	<b>0.379</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	04-May-2023 10:00
<b>Sulfate</b>	<b>61.3</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:00
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	400		5.00	10.0	mg/L	1	25-Apr-2023 16:00
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.61	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	20.1	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: GWMP 8A  
 Collection Date: 18-Apr-2023 09:50

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-03  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	U		0.000400	0.00200	mg/L	1	04-May-2023 14:38
<b>Arsenic</b>	<b>0.00131</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Barium</b>	<b>0.289</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:38
Beryllium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:38
<b>Boron</b>	<b>0.115</b>		<b>0.0220</b>	<b>0.0400</b>	<b>mg/L</b>	2	04-May-2023 16:23
Cadmium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:38
<b>Calcium</b>	<b>77.2</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Chromium</b>	<b>0.00501</b>		<b>0.000400</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Cobalt</b>	<b>0.00142</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Lead</b>	<b>0.00615</b>		<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Lithium</b>	<b>0.00907</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Molybdenum</b>	<b>0.000954</b>	J	<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:38
<b>Selenium</b>	<b>0.00943</b>		<b>0.00110</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:38
Thallium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:38
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	05-May-2023 16:38
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>10.1</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:06
<b>Fluoride</b>	<b>0.350</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	04-May-2023 10:06
<b>Sulfate</b>	<b>53.8</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:06
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	350		5.00	10.0	mg/L	1	25-Apr-2023 16:00
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.47	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	20.7	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: GWMP 10A  
 Collection Date: 18-Apr-2023 10:30

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-04  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	0.000943	J	0.000400	0.00200	mg/L	1	04-May-2023 14:39
Arsenic	0.00976		0.000400	0.00200	mg/L	1	04-May-2023 14:39
Barium	0.117		0.00190	0.00400	mg/L	1	04-May-2023 14:39
Beryllium	0.000252	J	0.000200	0.00200	mg/L	1	04-May-2023 14:39
Boron	4.95		0.220	0.400	mg/L	20	04-May-2023 16:25
Cadmium		U	0.000200	0.00200	mg/L	1	04-May-2023 14:39
Calcium	132		0.0340	0.500	mg/L	1	04-May-2023 14:39
Chromium	0.00443		0.000400	0.00400	mg/L	1	04-May-2023 14:39
Cobalt	0.0106		0.000200	0.00500	mg/L	1	04-May-2023 14:39
Lead	0.00574		0.000600	0.00200	mg/L	1	04-May-2023 14:39
Lithium	0.00553		0.00100	0.00500	mg/L	1	04-May-2023 14:39
Molybdenum	0.0134		0.000600	0.00500	mg/L	1	04-May-2023 14:39
Selenium		U	0.00110	0.00200	mg/L	1	04-May-2023 14:39
Thallium		U	0.000200	0.00200	mg/L	1	04-May-2023 14:39
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury		U	0.0000300	0.000200	mg/L	1	05-May-2023 16:39
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
Chloride	29.6		0.200	0.500	mg/L	1	04-May-2023 10:12
Fluoride	0.727		0.0500	0.100	mg/L	1	04-May-2023 10:12
Sulfate	1,130		4.00	10.0	mg/L	20	04-May-2023 11:35
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	2,250		5.00	10.0	mg/L	1	25-Apr-2023 16:00
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.16	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	20.1	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: GWMP 12A  
 Collection Date: 17-Apr-2023 13:45

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-05  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	U		0.000400	0.00200	mg/L	1	04-May-2023 14:41
<b>Arsenic</b>	<b>0.00232</b>		<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:41
<b>Barium</b>	<b>0.0226</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:41
Beryllium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:41
<b>Boron</b>	<b>10.2</b>		<b>0.220</b>	<b>0.400</b>	<b>mg/L</b>	20	04-May-2023 16:29
Cadmium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:41
<b>Calcium</b>	<b>271</b>		<b>0.680</b>	<b>10.0</b>	<b>mg/L</b>	20	04-May-2023 16:29
<b>Chromium</b>	<b>0.000811</b>	J	<b>0.000400</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:41
<b>Cobalt</b>	<b>0.00313</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:41
<b>Lead</b>	<b>0.00293</b>		<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:41
<b>Lithium</b>	<b>0.00346</b>	J	<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:41
<b>Molybdenum</b>	<b>0.00582</b>		<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:41
Selenium	U		0.00110	0.00200	mg/L	1	04-May-2023 14:41
Thallium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:41
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	05-May-2023 16:41
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>78.0</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:18
<b>Fluoride</b>	<b>0.448</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	04-May-2023 10:18
<b>Sulfate</b>	<b>2,590</b>		<b>10.0</b>	<b>25.0</b>	<b>mg/L</b>	50	04-May-2023 11:41
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	5,410		5.00	10.0	mg/L	1	24-Apr-2023 12:34
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.07	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	21.6	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: GWMP 9A  
 Collection Date: 18-Apr-2023 10:40

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-06  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	U		0.000400	0.00200	mg/L	1	04-May-2023 14:43
<b>Arsenic</b>	<b>0.00184</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:43
<b>Barium</b>	<b>0.0547</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:43
Beryllium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:43
<b>Boron</b>	<b>1.23</b>		<b>0.110</b>	<b>0.200</b>	<b>mg/L</b>	10	04-May-2023 16:31
Cadmium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:43
<b>Calcium</b>	<b>28.8</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 14:43
Chromium	U		0.000400	0.00400	mg/L	1	04-May-2023 14:43
Cobalt	U		0.000200	0.00500	mg/L	1	04-May-2023 14:43
Lead	U		0.000600	0.00200	mg/L	1	04-May-2023 14:43
<b>Lithium</b>	<b>0.0172</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:43
<b>Molybdenum</b>	<b>0.00507</b>		<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:43
Selenium	U		0.00110	0.00200	mg/L	1	04-May-2023 14:43
Thallium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:43
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	05-May-2023 16:43
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>17.5</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:24
<b>Fluoride</b>	<b>0.620</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	04-May-2023 10:24
<b>Sulfate</b>	<b>100</b>		<b>0.400</b>	<b>1.00</b>	<b>mg/L</b>	2	04-May-2023 11:46
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	480		5.00	10.0	mg/L	1	25-Apr-2023 12:25
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.90	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	20.1	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch CCR AM  
 Sample ID: DUP 1  
 Collection Date: 17-Apr-2023 13:45

**ANALYTICAL REPORT**  
 WorkOrder:HS23041342  
 Lab ID:HS23041342-07  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 03-May-2023		Analyst: JC	
Antimony	U		0.000400	0.00200	mg/L	1	04-May-2023 14:45
<b>Arsenic</b>	<b>0.00240</b>		<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:45
<b>Barium</b>	<b>0.0307</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:45
Beryllium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:45
<b>Boron</b>	<b>9.80</b>		<b>0.220</b>	<b>0.400</b>	<b>mg/L</b>	20	04-May-2023 16:33
Cadmium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:45
<b>Calcium</b>	<b>259</b>		<b>0.680</b>	<b>10.0</b>	<b>mg/L</b>	20	04-May-2023 16:33
<b>Chromium</b>	<b>0.00108</b>	J	<b>0.000400</b>	<b>0.00400</b>	<b>mg/L</b>	1	04-May-2023 14:45
<b>Cobalt</b>	<b>0.00314</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:45
<b>Lead</b>	<b>0.00316</b>		<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	04-May-2023 14:45
<b>Lithium</b>	<b>0.00351</b>	J	<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:45
<b>Molybdenum</b>	<b>0.00582</b>		<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	04-May-2023 14:45
Selenium	U		0.00110	0.00200	mg/L	1	04-May-2023 14:45
Thallium	U		0.000200	0.00200	mg/L	1	04-May-2023 14:45
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 05-May-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	05-May-2023 16:51
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>77.0</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	04-May-2023 10:30
<b>Fluoride</b>	<b>0.572</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	04-May-2023 10:30
<b>Sulfate</b>	<b>2,570</b>		<b>10.0</b>	<b>25.0</b>	<b>mg/L</b>	50	04-May-2023 11:52
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	4,230		5.00	10.0	mg/L	1	24-Apr-2023 12:34
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: CD	
pH	7.21	H	0.100	0.100	pH Units	1	05-May-2023 17:03
Temp Deg C @pH	20.7	H	0	0	°C	1	05-May-2023 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**Batch ID:** 193317      **Start Date:** 03 May 2023 12:00      **End Date:** 03 May 2023 16:00  
**Method:** WATER - SW3010A      **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23041342-01		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS23041342-02		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS23041342-03		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS23041342-04		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS23041342-05		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS23041342-06		10 (mL)	10 (mL)	1	250 mL plastic, Neat
HS23041342-07		10 (mL)	10 (mL)	1	250 mL plastic, Neat

**Batch ID:** 193448      **Start Date:** 05 May 2023 08:30      **End Date:** 05 May 2023 11:30  
**Method:** MERCURY PREP BY 7470A- WATER      **Prep Code:** HG\_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23041342-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23041342-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23041342-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23041342-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23041342-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23041342-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23041342-07		10 (mL)	10 (mL)	1	120 plastic HNO3



**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 193317 ( 0 )		<b>Test Name :</b> ICP-MS METALS BY SW6020A			<b>Matrix:</b> Water	
HS23041342-01	GWMP 11A	18 Apr 2023 11:32		03 May 2023 12:00	04 May 2023 14:14	1
HS23041342-02	GWMP 6A	18 Apr 2023 11:05		03 May 2023 12:00	04 May 2023 14:29	1
HS23041342-03	GWMP 8A	18 Apr 2023 09:50		03 May 2023 12:00	04 May 2023 16:23	2
HS23041342-03	GWMP 8A	18 Apr 2023 09:50		03 May 2023 12:00	04 May 2023 14:38	1
HS23041342-04	GWMP 10A	18 Apr 2023 10:30		03 May 2023 12:00	04 May 2023 16:25	20
HS23041342-04	GWMP 10A	18 Apr 2023 10:30		03 May 2023 12:00	04 May 2023 14:39	1
HS23041342-05	GWMP 12A	17 Apr 2023 13:45		03 May 2023 12:00	04 May 2023 16:29	20
HS23041342-05	GWMP 12A	17 Apr 2023 13:45		03 May 2023 12:00	04 May 2023 14:41	1
HS23041342-06	GWMP 9A	18 Apr 2023 10:40		03 May 2023 12:00	04 May 2023 16:31	10
HS23041342-06	GWMP 9A	18 Apr 2023 10:40		03 May 2023 12:00	04 May 2023 14:43	1
HS23041342-07	DUP 1	17 Apr 2023 13:45		03 May 2023 12:00	04 May 2023 16:33	20
HS23041342-07	DUP 1	17 Apr 2023 13:45		03 May 2023 12:00	04 May 2023 14:45	1
<b>Batch ID:</b> 193448 ( 0 )		<b>Test Name :</b> MERCURY BY SW7470A			<b>Matrix:</b> Water	
HS23041342-01	GWMP 11A	18 Apr 2023 11:32		05 May 2023 08:30	05 May 2023 16:34	1
HS23041342-02	GWMP 6A	18 Apr 2023 11:05		05 May 2023 08:30	05 May 2023 16:36	1
HS23041342-03	GWMP 8A	18 Apr 2023 09:50		05 May 2023 08:30	05 May 2023 16:38	1
HS23041342-04	GWMP 10A	18 Apr 2023 10:30		05 May 2023 08:30	05 May 2023 16:39	1
HS23041342-05	GWMP 12A	17 Apr 2023 13:45		05 May 2023 08:30	05 May 2023 16:41	1
HS23041342-06	GWMP 9A	18 Apr 2023 10:40		05 May 2023 08:30	05 May 2023 16:43	1
HS23041342-07	DUP 1	17 Apr 2023 13:45		05 May 2023 08:30	05 May 2023 16:51	1
<b>Batch ID:</b> R433524 ( 0 )		<b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011			<b>Matrix:</b> Water	
HS23041342-05	GWMP 12A	17 Apr 2023 13:45			24 Apr 2023 12:34	1
HS23041342-07	DUP 1	17 Apr 2023 13:45			24 Apr 2023 12:34	1
<b>Batch ID:</b> R433640 ( 0 )		<b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011			<b>Matrix:</b> Water	
HS23041342-06	GWMP 9A	18 Apr 2023 10:40			25 Apr 2023 12:25	1
<b>Batch ID:</b> R433652 ( 0 )		<b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011			<b>Matrix:</b> Water	
HS23041342-01	GWMP 11A	18 Apr 2023 11:32			25 Apr 2023 16:00	1
HS23041342-02	GWMP 6A	18 Apr 2023 11:05			25 Apr 2023 16:00	1
HS23041342-03	GWMP 8A	18 Apr 2023 09:50			25 Apr 2023 16:00	1
HS23041342-04	GWMP 10A	18 Apr 2023 10:30			25 Apr 2023 16:00	1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID: R434432 ( 0 )</b>		<b>Test Name : ANIONS BY E300.0, REV 2.1, 1993</b>			<b>Matrix: Water</b>	
HS23041342-01	GWMP 11A	18 Apr 2023 11:32			04 May 2023 09:55	1
HS23041342-02	GWMP 6A	18 Apr 2023 11:05			04 May 2023 10:00	1
HS23041342-03	GWMP 8A	18 Apr 2023 09:50			04 May 2023 10:06	1
HS23041342-04	GWMP 10A	18 Apr 2023 10:30			04 May 2023 11:35	20
HS23041342-04	GWMP 10A	18 Apr 2023 10:30			04 May 2023 10:12	1
HS23041342-05	GWMP 12A	17 Apr 2023 13:45			04 May 2023 11:41	50
HS23041342-05	GWMP 12A	17 Apr 2023 13:45			04 May 2023 10:18	1
HS23041342-06	GWMP 9A	18 Apr 2023 10:40			04 May 2023 11:46	2
HS23041342-06	GWMP 9A	18 Apr 2023 10:40			04 May 2023 10:24	1
HS23041342-07	DUP 1	17 Apr 2023 13:45			04 May 2023 11:52	50
HS23041342-07	DUP 1	17 Apr 2023 13:45			04 May 2023 10:30	1
<b>Batch ID: R434518 ( 0 )</b>		<b>Test Name : PH BY SM4500H+ B-2011</b>			<b>Matrix: Water</b>	
HS23041342-01	GWMP 11A	18 Apr 2023 11:32			05 May 2023 17:03	1
HS23041342-02	GWMP 6A	18 Apr 2023 11:05			05 May 2023 17:03	1
HS23041342-03	GWMP 8A	18 Apr 2023 09:50			05 May 2023 17:03	1
HS23041342-04	GWMP 10A	18 Apr 2023 10:30			05 May 2023 17:03	1
HS23041342-05	GWMP 12A	17 Apr 2023 13:45			05 May 2023 17:03	1
HS23041342-06	GWMP 9A	18 Apr 2023 10:40			05 May 2023 17:03	1
HS23041342-07	DUP 1	17 Apr 2023 13:45			05 May 2023 17:03	1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

<b>Batch ID:</b> 193317 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> ICP-MS METALS BY SW6020A								
<b>MBLK</b>	Sample ID: <b>MBLK-193317</b>	Units: <b>mg/L</b>	Analysis Date: <b>04-May-2023 13:49</b>							
Client ID:	Run ID: <b>ICPMS06_434216</b>	SeqNo: <b>7279237</b>	PrepDate: <b>03-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Antimony	U	0.00200								
Arsenic	U	0.00200								
Barium	U	0.00400								
Beryllium	U	0.00200								
Boron	U	0.0200								
Cadmium	U	0.00200								
Calcium	U	0.500								
Chromium	U	0.00400								
Cobalt	U	0.00500								
Lead	U	0.00200								
Lithium	U	0.00500								
Molybdenum	U	0.00500								
Selenium	U	0.00200								
Thallium	U	0.00200								

<b>LCS</b>	Sample ID: <b>LCS-193317</b>	Units: <b>mg/L</b>	Analysis Date: <b>04-May-2023 13:51</b>							
Client ID:	Run ID: <b>ICPMS06_434216</b>	SeqNo: <b>7279238</b>	PrepDate: <b>03-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Antimony	0.05033	0.00200	0.05	0	101	80 - 120				
Arsenic	0.04856	0.00200	0.05	0	97.1	80 - 120				
Barium	0.0486	0.00400	0.05	0	97.2	80 - 120				
Beryllium	0.04966	0.00200	0.05	0	99.3	80 - 120				
Boron	0.5019	0.0200	0.5	0	100	80 - 120				
Cadmium	0.0488	0.00200	0.05	0	97.6	80 - 120				
Calcium	4.839	0.500	5	0	96.8	80 - 120				
Chromium	0.04723	0.00400	0.05	0	94.5	80 - 120				
Cobalt	0.04747	0.00500	0.05	0	94.9	80 - 120				
Lead	0.04808	0.00200	0.05	0	96.2	80 - 120				
Lithium	0.1048	0.00500	0.1	0	105	80 - 120				
Molybdenum	0.04472	0.00500	0.05	0	89.4	80 - 120				
Selenium	0.05233	0.00200	0.05	0	105	80 - 120				
Thallium	0.04218	0.00200	0.05	0	84.4	80 - 120				

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

<b>Batch ID:</b> 193317 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> ICP-MS METALS BY SW6020A								
<b>MS</b>	Sample ID: <b>HS23041338-06MS</b>	Units: <b>mg/L</b>	Analysis Date: <b>04-May-2023 13:57</b>							
Client ID:	Run ID: <b>ICPMS06_434216</b>	SeqNo: <b>7279241</b>	PrepDate: <b>03-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	0.05196	0.00200	0.05	0.000054	104	80 - 120				
Arsenic	0.05062	0.00200	0.05	0.000602	100	80 - 120				
Barium	0.2111	0.00400	0.05	0.1668	88.5	80 - 120				
Beryllium	0.05074	0.00200	0.05	0.000049	101	80 - 120				
Boron	0.5423	0.0200	0.5	0.02498	103	80 - 120				
Cadmium	0.0516	0.00200	0.05	0.000657	102	80 - 120				
Calcium	22.22	0.500	5	17.98	84.8	80 - 120				
Chromium	0.0486	0.00400	0.05	0.00042	96.4	80 - 120				
Cobalt	0.1183	0.00500	0.05	0.07405	88.4	80 - 120				
Lead	0.05006	0.00200	0.05	0.000608	98.9	80 - 120				
Lithium	0.1038	0.00500	0.1	0.000796	103	80 - 120				
Molybdenum	0.04687	0.00500	0.05	0.000205	93.3	80 - 120				
Selenium	0.05318	0.00200	0.05	0.001199	104	80 - 120				
Thallium	0.04727	0.00200	0.05	0.000326	93.9	80 - 120				

<b>MSD</b>	Sample ID: <b>HS23041338-06MSD</b>	Units: <b>mg/L</b>	Analysis Date: <b>04-May-2023 13:59</b>							
Client ID:	Run ID: <b>ICPMS06_434216</b>	SeqNo: <b>7279242</b>	PrepDate: <b>03-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	0.05129	0.00200	0.05	0.000054	102	80 - 120	0.05196	1.29	20	
Arsenic	0.04948	0.00200	0.05	0.000602	97.7	80 - 120	0.05062	2.29	20	
Beryllium	0.05009	0.00200	0.05	0.000049	100	80 - 120	0.05074	1.28	20	
Boron	0.5398	0.0200	0.5	0.02498	103	80 - 120	0.5423	0.457	20	
Cadmium	0.05042	0.00200	0.05	0.000657	99.5	80 - 120	0.0516	2.32	20	
Calcium	22.15	0.500	5	17.98	83.5	80 - 120	22.22	0.303	20	
Chromium	0.04792	0.00400	0.05	0.00042	95.0	80 - 120	0.0486	1.4	20	
Cobalt	0.1175	0.00500	0.05	0.07405	87.0	80 - 120	0.1183	0.632	20	
Lead	0.04982	0.00200	0.05	0.000608	98.4	80 - 120	0.05006	0.485	20	
Lithium	0.1023	0.00500	0.1	0.000796	102	80 - 120	0.1038	1.46	20	
Molybdenum	0.04583	0.00500	0.05	0.000205	91.3	80 - 120	0.04687	2.24	20	
Selenium	0.0541	0.00200	0.05	0.001199	106	80 - 120	0.05318	1.72	20	
Thallium	0.04641	0.00200	0.05	0.000326	92.2	80 - 120	0.04727	1.84	20	

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

**Batch ID:** 193317 ( 0 )      **Instrument:** ICPMS06      **Method:** ICP-MS METALS BY SW6020A

**MSD**      Sample ID: **HS23041338-06MSD**      Units: **mg/L**      Analysis Date: **04-May-2023 14:36**  
 Client ID:      Run ID: **ICPMS06\_434216**      SeqNo: **7279409**      PrepDate: **03-May-2023**      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Barium	0.2113	0.00400	0.05	0.1668	89.0	80 - 120	0.2111	0.107	20
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**PDS**      Sample ID: **HS23041338-06PDS**      Units: **mg/L**      Analysis Date: **04-May-2023 14:01**  
 Client ID:      Run ID: **ICPMS06\_434216**      SeqNo: **7279243**      PrepDate: **03-May-2023**      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Antimony	0.09795	0.00200	0.1	0.000054	97.9	75 - 125			
Arsenic	0.09805	0.00200	0.1	0.000602	97.4	75 - 125			
Barium	0.2564	0.00400	0.1	0.1668	89.5	75 - 125			
Beryllium	0.0973	0.00200	0.1	0.000049	97.3	75 - 125			
Cadmium	0.09978	0.00200	0.1	0.000657	99.1	75 - 125			
Calcium	25.79	0.500	10	17.98	78.1	75 - 125			
Chromium	0.09413	0.00400	0.1	0.00042	93.7	75 - 125			
Cobalt	0.1692	0.00500	0.1	0.07405	95.1	75 - 125			
Lead	0.09738	0.00200	0.1	0.000608	96.8	75 - 125			
Molybdenum	0.09206	0.00500	0.1	0.000205	91.9	75 - 125			
Selenium	0.1025	0.00200	0.1	0.001199	101	75 - 125			
Thallium	0.1017	0.00200	0.1	0.000326	101	75 - 125			

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

<b>Batch ID:</b> 193317 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> ICP-MS METALS BY SW6020A								
<b>SD</b>	Sample ID: <b>HS23041338-06SD</b>	Units: <b>mg/L</b>	Analysis Date: <b>04-May-2023 13:55</b>							
Client ID:	Run ID: <b>ICPMS06_434216</b>	SeqNo: <b>7279240</b>	PrepDate: <b>03-May-2023</b> DF: <b>5</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit	Qual

Antimony	U	0.0100					0.000054	0	10
Arsenic	U	0.0100					0.000602	0	10
Barium	0.1615	0.0200					0.1668	3.22	10
Beryllium	U	0.0100					0.000049	0	10
Boron	U	0.100					0.02498	0	10
Cadmium	U	0.0100					0.000657	0	10
Calcium	18.08	2.50					17.98	0.555	10
Chromium	U	0.0200					0.00042	0	10
Cobalt	0.07522	0.0250					0.07405	1.58	10
Lead	U	0.0100					0.000608	0	10
Lithium	U	0.0250					0.000796	0	10
Molybdenum	U	0.0250					0.000205	0	10
Selenium	U	0.0100					0.001199	0	10
Thallium	U	0.0100					0.000326	0	10

The following samples were analyzed in this batch:

HS23041342-01	HS23041342-02	HS23041342-03	HS23041342-04
HS23041342-05	HS23041342-06	HS23041342-07	

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

<b>Batch ID:</b> 193448 ( 0 )	<b>Instrument:</b> HG04	<b>Method:</b> MERCURY BY SW7470A
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<b>MBLK</b>	Sample ID: <b>MBLK-193448</b>	Units: <b>mg/L</b>	Analysis Date: <b>05-May-2023 15:56</b>							
Client ID:	Run ID: <b>HG04_434505</b>	SeqNo: <b>7283268</b>	PrepDate: <b>05-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury U 0.000200

<b>LCS</b>	Sample ID: <b>LCS-193448</b>	Units: <b>mg/L</b>	Analysis Date: <b>05-May-2023 15:58</b>							
Client ID:	Run ID: <b>HG04_434505</b>	SeqNo: <b>7283269</b>	PrepDate: <b>05-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00448 0.000200 0.005 0 89.6 80 - 120

<b>MS</b>	Sample ID: <b>HS23041338-06MS</b>	Units: <b>mg/L</b>	Analysis Date: <b>05-May-2023 16:10</b>							
Client ID:	Run ID: <b>HG04_434505</b>	SeqNo: <b>7283276</b>	PrepDate: <b>05-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00416 0.000200 0.005 0.00004 82.4 75 - 125

<b>MSD</b>	Sample ID: <b>HS23041338-06MSD</b>	Units: <b>mg/L</b>	Analysis Date: <b>05-May-2023 16:11</b>							
Client ID:	Run ID: <b>HG04_434505</b>	SeqNo: <b>7283277</b>	PrepDate: <b>05-May-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00422 0.000200 0.005 0.00004 83.6 75 - 125 0.00416 1.43 20

<b>The following samples were analyzed in this batch:</b>	HS23041342-01	HS23041342-02	HS23041342-03	HS23041342-04
	HS23041342-05	HS23041342-06	HS23041342-07	

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

Batch ID: R433524 ( 0 )		Instrument: Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011						
<b>MBLK</b>	Sample ID: <b>WBLK-04242023</b>	Units: <b>mg/L</b>			Analysis Date: <b>24-Apr-2023 12:34</b>					
Client ID:	Run ID: <b>Balance1_433524</b>	SeqNo: <b>7259566</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		U	10.0							
<b>LCS</b>	Sample ID: <b>LCS-04242023</b>	Units: <b>mg/L</b>			Analysis Date: <b>24-Apr-2023 12:34</b>					
Client ID:	Run ID: <b>Balance1_433524</b>	SeqNo: <b>7259565</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		1084	10.0	1000	0	108	85 - 115			
<b>DUP</b>	Sample ID: <b>HS23041228-15DUP</b>	Units: <b>mg/L</b>			Analysis Date: <b>24-Apr-2023 12:34</b>					
Client ID:	Run ID: <b>Balance1_433524</b>	SeqNo: <b>7259561</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		188	10.0				190	1.06	20	
<b>DUP</b>	Sample ID: <b>HS23041109-03DUP</b>	Units: <b>mg/L</b>			Analysis Date: <b>24-Apr-2023 12:34</b>					
Client ID:	Run ID: <b>Balance1_433524</b>	SeqNo: <b>7259551</b>		PrepDate:			DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		182	10.0				180	1.1	20	

The following samples were analyzed in this batch: HS23041342-05      HS23041342-07



**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

**Batch ID:** R433640 ( 0 )      **Instrument:** Balance1      **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

<b>MBLK</b>	Sample ID: <b>WBLK-04252023</b>	Units: <b>mg/L</b>			Analysis Date: <b>25-Apr-2023 12:25</b>				
Client ID:	Run ID: <b>Balance1_433640</b>	SeqNo: <b>7262345</b>		PrepDate:			DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      U      10.0

<b>LCS</b>	Sample ID: <b>LCS-04252023</b>	Units: <b>mg/L</b>			Analysis Date: <b>25-Apr-2023 12:25</b>				
Client ID:	Run ID: <b>Balance1_433640</b>	SeqNo: <b>7262344</b>		PrepDate:			DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      1094      10.0      1000      0      109      85 - 115

<b>DUP</b>	Sample ID: <b>HS23041163-07DUP</b>	Units: <b>mg/L</b>			Analysis Date: <b>25-Apr-2023 12:25</b>				
Client ID:	Run ID: <b>Balance1_433640</b>	SeqNo: <b>7262337</b>		PrepDate:			DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      820      10.0                     816      0.489      20

<b>DUP</b>	Sample ID: <b>HS23041115-01DUP</b>	Units: <b>mg/L</b>			Analysis Date: <b>25-Apr-2023 12:25</b>				
Client ID:	Run ID: <b>Balance1_433640</b>	SeqNo: <b>7262328</b>		PrepDate:			DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      318      10.0                     320      0.627      20

The following samples were analyzed in this batch: HS23041342-06

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

**Batch ID:** R433652 ( 0 )      **Instrument:** Balance1      **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

**MBLK**      Sample ID: **WBLK-04252023**      Units: **mg/L**      Analysis Date: **25-Apr-2023 16:00**  
 Client ID:      Run ID: **Balance1\_433652**      SeqNo: **7262797**      PrepDate:      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      U      10.0

**LCS**      Sample ID: **LCS-04252023**      Units: **mg/L**      Analysis Date: **25-Apr-2023 16:00**  
 Client ID:      Run ID: **Balance1\_433652**      SeqNo: **7262796**      PrepDate:      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      1078      10.0      1000      0      108      85 - 115

**DUP**      Sample ID: **HS23041342-02DUP**      Units: **mg/L**      Analysis Date: **25-Apr-2023 16:00**  
 Client ID: **GWMP 6A**      Run ID: **Balance1\_433652**      SeqNo: **7262793**      PrepDate:      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      402      10.0      400      0.499      20

**DUP**      Sample ID: **HS23041262-01DUP**      Units: **mg/L**      Analysis Date: **25-Apr-2023 16:00**  
 Client ID:      Run ID: **Balance1\_433652**      SeqNo: **7262781**      PrepDate:      DF: **1**  
 Analyte      Result      PQL      SPK Val      SPK Ref Value      %REC      Control Limit      RPD Ref Value      %RPD      RPD Limit Qual

Total Dissolved Solids (Residue, Filterable)      856      10.0      860      0.466      20

The following samples were analyzed in this batch: HS23041342-01      HS23041342-02      HS23041342-03      HS23041342-04

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

<b>Batch ID:</b> R434432 ( 0 )		<b>Instrument:</b> ICS-Integrion		<b>Method:</b> ANIONS BY E300.0, REV 2.1, 1993					
<b>MBLK</b>	Sample ID: <b>MBLK</b>	Units: <b>mg/L</b>			Analysis Date: <b>04-May-2023 09:43</b>				
Client ID:		Run ID: <b>ICS-Integrion_434432</b>	SeqNo: <b>7281231</b>	PrepDate:	DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	U	0.500							
Fluoride	U	0.100							
Sulfate	U	0.500							

<b>LCS</b>	Sample ID: <b>LCS</b>	Units: <b>mg/L</b>			Analysis Date: <b>04-May-2023 11:05</b>				
Client ID:		Run ID: <b>ICS-Integrion_434432</b>	SeqNo: <b>7281242</b>	PrepDate:	DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	21.18	0.500	20	0	106	90 - 110			
Fluoride	4.348	0.100	4	0	109	90 - 110			
Sulfate	18.84	0.500	20	0	94.2	90 - 110			

<b>MS</b>	Sample ID: <b>HS23041342-01MS</b>	Units: <b>mg/L</b>			Analysis Date: <b>04-May-2023 11:23</b>				
Client ID: <b>GWMP 11A</b>		Run ID: <b>ICS-Integrion_434432</b>	SeqNo: <b>7281245</b>	PrepDate:	DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	17.14	0.500	10	6.379	108	80 - 120			
Fluoride	2.488	0.100	2	0.2426	112	80 - 120			
Sulfate	45.98	0.500	10	38.81	71.7	80 - 120			S

<b>MSD</b>	Sample ID: <b>HS23041342-01MSD</b>	Units: <b>mg/L</b>			Analysis Date: <b>04-May-2023 11:29</b>				
Client ID: <b>GWMP 11A</b>		Run ID: <b>ICS-Integrion_434432</b>	SeqNo: <b>7281246</b>	PrepDate:	DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	17.16	0.500	10	6.379	108	80 - 120	17.14	0.0875	20
Fluoride	2.438	0.100	2	0.2426	110	80 - 120	2.488	2.05	20
Sulfate	45.58	0.500	10	38.81	67.8	80 - 120	45.98	0.858	20 S

The following samples were analyzed in this batch:

HS23041342-01	HS23041342-02	HS23041342-03	HS23041342-04
HS23041342-05	HS23041342-06	HS23041342-07	

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QC BATCH REPORT**

**Batch ID:** R434518 ( 0 )      **Instrument:** WetChem\_HS      **Method:** PH BY SM4500H+ B-2011

**DUP**      Sample ID: **HS23041342-05DUP**      Units: **pH Units**      Analysis Date: **05-May-2023 17:03**  
**Client ID:** **GWMP 12A**      Run ID: **WetChem\_HS\_434518** SeqNo: **7282998**      PrepDate:      DF: **1**  
**Analyte**      **Result**      **PQL**      **SPK Val**      **SPK Ref Value**      **%REC**      **Control Limit**      **RPD Ref Value**      **%RPD**      **RPD Limit**      **Qual**

pH	7.07	0.100					7.07		0	10
Temp Deg C @pH	21.6	0					21.6		0	10

**The following samples were analyzed in this batch:**

HS23041342-01	HS23041342-02	HS23041342-03	HS23041342-04
HS23041342-05	HS23041342-06	HS23041342-07	

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch CCR AM  
**WorkOrder:** HS23041342

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

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**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Utah	TX026932022-13	31-Jul-2023

Sample Receipt Checklist

Work Order ID: HS23041342

Date/Time Received: 21-Apr-2023 10:25

Client Name: Enviro Clean Services-Tulsa

Received by: Corey Grandits

Completed By: /S/ Malcolm Burluson 21-Apr-2023 15:00 Reviewed by: /S/ Anna Kinchen 26-Apr-2023 11:47  
 eSignature Date/Time eSignature Date/Time

Matrices: **water**

Carrier name: **FedEx**

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes  No  Not Present
- Chain of custody present? Yes  No  1 Page(s)
- Chain of custody signed when relinquished and received? Yes  No
- Samplers name present on COC? 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
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s): 3.1uc 2.6c | ir31

Cooler(s)/Kit(s): blue

Date/Time sample(s) sent to storage: 04212023

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:


Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

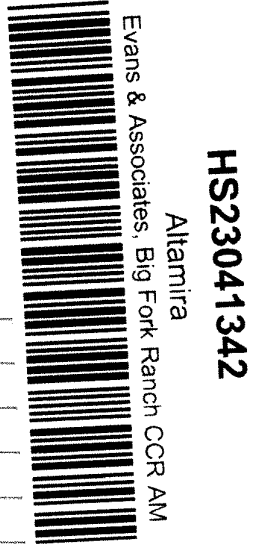
Corrective Action:

CHAIN OF CUSTODY RECORD

 <p>ALTAMIRA formerly known as Enviro Clean Cardinal</p>	PROJECT NUMBER: <b>EMEEOK 2023/2000</b>	PROJECT NAME: <b>E+A, Big Fork Ranch CCR AM</b>	COC: <u>1</u> of <u>1</u>
	CLIENT CONTACT: <b>Heather Tiffany/Chris Schaefer</b>	CLIENT EMAIL: <b>heather.tiffany@altamira-us.com labdata@altamira-us.com</b>	CLIENT PHONE: <b>405-610-0000</b>

LABORATORY / LAB PM: <b>ALS/Anna Kinchen</b>	CLIENT ADDRESS: <b>525 Central Park Dr. Suite 500 OKC, OK 73105</b>
LAB ADDRESS: <b>10450 Stancliff Road Suite 210 Houston TX 77099</b>	SPECIAL INSTRUCTIONS: <b>* Metals, Total by 6020A: Sb, As, Ba, Cd, Cr, Co, Pb, Li, Mo, Sn, Th</b>
SHIPMENT METHOD: <b>Fed Ex</b>	TRACKING: <b>7719 1483 5000</b>

TAT: <b>Standard</b>		PARAMETERS									
NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	pH (SUM100 H+B)	Cl, F, SO4 (300.10)	B (6020A)	Ca (6010B)	ZDS (SM2540C)	Metals, Total (*6020A)	Hg (7470A)	Field Filtered Metals*		
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
2	N	X	X	X	X	X	X	X			
1	Y								X	X	
1	Y								X	X	
1	Y								X	X	
1	Y								X	X	
1	Y								X	X	



NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	pH (SUM100 H+B)	Cl, F, SO4 (300.10)	B (6020A)	Ca (6010B)	ZDS (SM2540C)	Metals, Total (*6020A)	Hg (7470A)	Field Filtered Metals*
1	GWMP 11A	4/18/23	1132	Water	2,9	2	N	X	X	X	X	X	X	X	
2	GWMP 6A	4/18/23	1105		2,9	2	N	X	X	X	X	X	X	X	
3	GWMP 8A	4/18/23	950		2,9	2	N	X	X	X	X	X	X	X	
4	GWMP 10A	4/18/23	1030		2,9	2	N	X	X	X	X	X	X	X	
5	GWMP 12A	4/17/23	1345		2,9	2	N	X	X	X	X	X	X	X	
6	GWMP 9A	4/18/23	1040		2,9	2	N	X	X	X	X	X	X	X	
7	<del>GWMP</del> DUP 1	4/17/23	1345		2,9	2	N	X	X	X	X	X	X	X	
8	GWMP 11A Filtered	4/18/23	1132		9	1	Y								X
9	GWMP 6A Filtered	4/18/23	1105		9	1	Y								X
10	GWMP 12A Filtered	4/17/23	1345		9	1	Y								X
11	GWMP 9A Filtered	4/18/23	1040		9	1	Y								X
12	DUP 1 Filtered	4/17/23	1345		9	1	Y								X
13	Temp Blank														
14															
15															

SAMPLER(S) NAME: <b>Pasha Wagon</b>		DATE: <b>4/20/23</b>	Total # of Containers:	SAMPLER(S) SIGNATURE: _____	DATE: <b>4/20/23</b>
RELINQUISHED BY: <b>Pasha Wagon</b>		TIME: <b>1530</b>	RECEIVED BY: _____	DATE: <b>4/20/23</b>	COOLER TEMP:
DATE: <b>4/20/23</b>		TIME: <b>1570</b>	DATE: <b>4/20/23</b>	TIME: <b>1025</b>	TIME:

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035 9-Other : \_\_\_\_\_

POINT OF ORIGIN:  Norman  Oklahoma City  Tulsa  Yukon  Midland  Other: \_\_\_\_\_

ALTAMIRA-US, LLC  
Page 27 of 30



Tanner Hoskins  
Attamira  
4/20/23

Tanner Hoskins  
Attamira  
4/20/23

**FRI - 21 APR 4:30**  
**STANDARD OVERNIGHT**

TRK# 7719 1483 5000  
0201

**AB SGRA**

77099  
TX-US IAH





ALTAMIRA  
formerly known as Enviro-Clean Cardinal

LABORATORY / LAB PM:

ALS/Anna Vinchen

LAB ADDRESS:  
10450 Standiford Road  
Suite 210  
Houston, TX 77099

SHIPMENT METHOD:

Fed Ex

TRACKING:

7719 1483 5000

PROJECT NUMBER:

EMEE0K 2023 / 2000

CLIENT CONTACT:

Heather Tiffany / Chris Schaefer

CLIENT ADDRESS:

525 Central Park Dr.  
Suite 500  
Buck, Ok 77105

SPECIAL INSTRUCTIONS:  
\* Metals, Total by 6020A:  
Sb, As, Ba, Cd, Cr, Co, Pb, Li, Mo, Se, Tl

CHAIN OF CUSTODY RECORD

PROJECT NAME:

E+H, Big Fork Ranch CCR AM

CLIENT EMAIL:

heather.tiffany@evans-us.com  
kbb@evans-us.com

TAT:

Standard

COC: 1 of 1

CLIENT PHONE:

405-610-0000

NUMBER OF CONTAINERS

FIELD FILTERED (YES / NO)

PH (SM4500 H+B)

CLF 504 (300 W)

B (6020A)

Ca (6010B)

TDS (SM2540C)

Metals Total\* (6020A)

Hg (7470A)

Field Filtered Metals\*

PARAMETERS

Field Filtered Metals\*

Hg (7470A)

Metals Total\* (6020A)

TDS (SM2540C)

Ca (6010B)

B (6020A)

CLF 504 (300 W)

PH (SM4500 H+B)

CLF 504 (300 W)

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Field Filtered Metals\*

Hg (7470A)

Metals Total\* (6020A)

TDS (SM2540C)

Ca

Tanner Hoskins  
Altamira  
4/20/23

Tanner Hoskins  
Altamira  
4/20/23

FRI - 21 APR 4:30P  
STANDARD OVERNIGHT

TRK# 7719 1483 5000  
0201

77099  
TX-US IAH

**AB SGRA**



May 30, 2023

Heather Tiffany  
Altamira  
525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105

Re: Radiochemistry  
Work Order: 619918

Dear Heather Tiffany:

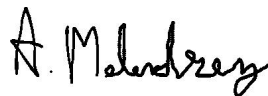
GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 27, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,



Adrian Melendrez for  
Jacob Crook  
Project Manager

Purchase Order: GELP22-1329  
Enclosures



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

ALMI001 Altamira

Client SDG: 619918 GEL Work Order: 619918

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Jacob Crook.

Reviewed by



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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Altamira  
Address : 525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105  
Contact: Heather Tiffany  
Project: Radiochemistry

Report Date: May 30, 2023

Client Sample ID: GWMP - 9A  
Sample ID: 619918001  
Matrix: Water  
Collect Date: 18-APR-23  
Receive Date: 27-APR-23  
Collector: Client

Project: ALMI00122  
Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.0142	+/-1.23	2.25	+/-1.24	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		0.718	+/-1.31		+/-1.31		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.703	+/-0.422	0.541	+/-0.435	1.00	pCi/L			LXP1	05/18/23	0827	2423869	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	92.1	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Altamira  
Address : 525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105

Report Date: May 30, 2023

Contact: Heather Tiffany  
Project: Radiochemistry

Client Sample ID: GWMP - 6A  
Sample ID: 619918002  
Matrix: Water  
Collect Date: 18-APR-23  
Receive Date: 27-APR-23  
Collector: Client

Project: ALMI00122  
Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.743	+/-0.731	1.18	+/-0.755	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.68	+/-1.16		+/-1.39		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.94	+/-0.900	0.551	+/-1.16	1.00	pCi/L			LXP1	05/18/23	0827	2423869	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	86.8	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Report Date: May 30, 2023

Contact: Heather Tiffany  
 Project: Radiochemistry

Client Sample ID: GWMP - 12A  
 Sample ID: 619918003  
 Matrix: Water  
 Collect Date: 17-APR-23  
 Receive Date: 27-APR-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.434	+/-0.834	1.48	+/-0.842	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		0.575	+/-0.869		+/-0.877		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.141	+/-0.243	0.449	+/-0.246	1.00	pCi/L			LXP1	05/18/23	0919	2423869	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	89.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	



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## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Contact: Heather Tiffany  
 Project: Radiochemistry

Report Date: May 30, 2023

Client Sample ID: GWMP - 11A  
 Sample ID: 619918004  
 Matrix: Water  
 Collect Date: 18-APR-23  
 Receive Date: 27-APR-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.30	+/-1.11	1.78	+/-1.16	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.18	+/-1.18		+/-1.23		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.888	+/-0.403	0.387	+/-0.426	1.00	pCi/L			LXP1	05/18/23	0919	2423869	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	74.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Report Date: May 30, 2023

Contact: Heather Tiffany  
 Project: Radiochemistry

Client Sample ID: GWMP - 10A  
 Sample ID: 619918005  
 Matrix: Water  
 Collect Date: 21-APR-23  
 Receive Date: 27-APR-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.158	+/-0.897	1.67	+/-0.898	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		0.730	+/-0.966		+/-0.976		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.571	+/-0.358	0.451	+/-0.380	1.00	pCi/L			LXP1	05/18/23	0919	2423869	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	85	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Report Date: May 30, 2023

Contact: Heather Tiffany  
 Project: Radiochemistry

Client Sample ID: GWMP - 8A  
 Sample ID: 619918006  
 Matrix: Water  
 Collect Date: 25-APR-23  
 Receive Date: 27-APR-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.926	+/-0.984	2.05	+/-0.984	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		0.507	+/-1.10		+/-1.10		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.507	+/-0.487	0.776	+/-0.497	1.00	pCi/L			LXP1	05/18/23	0919	2423869	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	80.8	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Altamira  
Address : 525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105

Report Date: May 30, 2023

Contact: Heather Tiffany  
Project: Radiochemistry

Client Sample ID: Dup 1  
Sample ID: 619918007  
Matrix: Water  
Collect Date: 17-APR-23  
Receive Date: 27-APR-23  
Collector: Client

Project: ALMI00122  
Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b> <i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.17	+/-1.24	1.87	+/-1.36	3.00	pCi/L			JE1	05/24/23	1549	2423918	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.94	+/-1.30		+/-1.42		pCi/L			NXL1	05/30/23	1641	2429540	2
<b>Rad Radium-226</b> <i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.762	+/-0.389	0.405	+/-0.408	1.00	pCi/L			LXP1	05/18/23	0919	2423869	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2423918	81.4	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

### Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: May 30, 2023  
Page 1 of 2

**Client :** Altamira  
525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma

**Contact:** Heather Tiffany

**Workorder:** 619918

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
<b>Rad Gas Flow</b>									
Batch	2423918								
QC1205394666	619993004 DUP								
Radium-228	U	-3.26	2.23	pCi/L	9		(0% - 100%)	JE1	05/24/23 15:49
	Uncert:	+/-0.968	+/-1.23						
	TPU:	+/-0.968	+/-1.36						
QC1205394667	LCS								
Radium-228	80.5		69.4	pCi/L		86.3	(75%-125%)	JE1	05/24/23 15:49
	Uncert:		+/-4.04						
	TPU:		+/-18.1						
QC1205394665	MB								
Radium-228		U	-0.503	pCi/L				JE1	05/24/23 15:49
	Uncert:		+/-1.15						
	TPU:		+/-1.15						
<b>Rad Ra-226</b>									
Batch	2423869								
QC1205394548	619993004 DUP								
Radium-226	U	0.376	0.744	pCi/L	65.7		(0% - 100%)	LXP1	05/18/23 10:09
	Uncert:	+/-0.338	+/-0.387						
	TPU:	+/-0.343	+/-0.422						
QC1205394550	LCS								
Radium-226	26.3		22.1	pCi/L		83.8	(75%-125%)	LXP1	05/18/23 10:58
	Uncert:		+/-2.78						
	TPU:		+/-5.13						
QC1205394547	MB								
Radium-226		U	0.244	pCi/L				LXP1	05/18/23 10:09
	Uncert:		+/-0.252						
	TPU:		+/-0.256						
QC1205394549	619993004 MS								
Radium-226	129	U	0.376	103	pCi/L	79.9	(75%-125%)	LXP1	05/18/23 10:09
	Uncert:		+/-0.338	+/-10.2					
	TPU:		+/-0.343	+/-19.1					

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- J Value is estimated
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 619918

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UI		Gamma Spectroscopy--Uncertain identification								
BD		Results are either below the MDC or tracer recovery is low								
h		Preparation or preservation holding time was exceeded								
R		Sample results are rejected								
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.								
N/A		RPD or %Recovery limits do not apply.								
ND		Analyte concentration is not detected above the detection limit								
M		M if above MDC and less than LLD								
NJ		Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier								
FA		Failed analysis.								
UJ		Gamma Spectroscopy--Uncertain identification								
Q		One or more quality control criteria have not been met. Refer to the applicable narrative or DER.								
K		Analyte present. Reported value may be biased high. Actual value is expected to be lower.								
UL		Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.								
L		Analyte present. Reported value may be biased low. Actual value is expected to be higher.								
N1		See case narrative								
Y		Other specific qualifiers were required to properly define the results. Consult case narrative.								
**		Analyte is a Tracer compound								
M		REMP Result > MDC/CL and < RDL								
J		See case narrative for an explanation								

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

\*\* Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

CHAIN OF CUSTODY RECORD

6019918



PROJECT NUMBER:

EMEEOK 2023/2000

PROJECT NAME:

E+A, Big Fork Ranch CCR-AH

COC: \_\_\_\_\_ of \_\_\_\_\_

CLIENT CONTACT:

Heather Pflaum / Chris Schaefer

CLIENT EMAIL:

heather.pflaum@altamira-us.com  
lab.data@altamira-us.com

CLIENT PHONE:

405.618.2021

LABORATORY / LAB PM:

GEL / Jake Crook

CLIENT ADDRESS:

525 Central Park Drive  
Suite 500  
Oklahoma 73105

TAT:

Standard

LAB ADDRESS:

2040 Savage Road  
Charleston, SC 29407

SPECIAL INSTRUCTIONS:

\*\* Report Rad 226/228 Combined

SHIPMENT METHOD:

Fed Ex

TRACKING:

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	PARAMETERS	HOLD
1	GWMP - 9A	4/18/23	1040	Water	2	1	N	** Rad-226 ** Rad-228	
2	GWMP - 6A	4/18/23	1105	Water	2	1	N		
3	GWMP - 12A	4/17/23	1345	Water	2	1	N		
4	GWMP - 11A	4/18/23	1132	Water	2	1	N		
5	GWMP - 10A *	4/21/23	1230	Water	2	1	N		
6	GWMP - 8A *	4/25/23	1245	Water	2	1	N		
7	Dup 1	4/17/23	1345	Water	2	1	N		
8									
9									
10									
11									
12									
13									
14									
15									

SAMPLER(S) NAME:

Jashe Wyllyth

DATE:

4/25/23

TIME:

1600

RECEIVED BY:

[Signature]

DATE:

4/27/23

TIME:

9:25

SAMPLER(S) SIGNATURE:

[Signature]

DATE:

TIME:

COOLER TEMP:

PRESERVATION KEY:

1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-4 Degrees C 8-9035 9-Other:

POINT OF ORIGIN:

Norman  Oklahoma City  Tulsa  Yukon  Midland  Other:

ALTAMIRA-US, LLC  
GWMP-8A- Well had limited recovery and bottle couldn't be filled.  
GWMP-10A- well had limited recovery and bottle couldn't be filled.



SAMPLE RECEIPT & REVIEW FORM

Client: <u>ALMI</u>		SDG/AR/COC/Work Order: <u>619918</u>			
Received By: <u>QG</u>		Date Received: <u>4/29/23</u>			
Carrier and Tracking Number		Circle Applicable: <input checked="" type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input type="checkbox"/> Other			
		<u>7913 5057 5484</u>			
Suspected Hazard Information		Yes    No    *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/> Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples to be received as radioactive?		<input checked="" type="checkbox"/> COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/> Maximum Net Counts Observed* (Observed Counts - Area Background Counts): _____ CPM / mR/Hr Classified as: Rad 1    Rad 2    Rad 3			
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/> COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. <input type="checkbox"/> PCB's <input type="checkbox"/> Flammable <input type="checkbox"/> Foreign Soil <input type="checkbox"/> RCRA <input type="checkbox"/> Asbestos <input type="checkbox"/> Beryllium    Other: _____			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC    COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs    Dry ice    None    Other: *all temperatures are recorded in Celsius    TEMP: <u>12°C</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>1P2-23</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC    Other (describe) <u>Missing container # GWMD-10A4</u>
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>AM SH</u>
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished    Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials SW Date 4/29/23 Page 1 of 1



**List of current GEL Certifications as of 30 May 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-4
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**Radiochemistry  
Technical Case Narrative  
Altamira  
SDG #: 619918**

**Product:** GFPC Ra228, Liquid

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2423918

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
619918001	GWMP - 9A
619918002	GWMP - 6A
619918003	GWMP - 12A
619918004	GWMP - 11A
619918005	GWMP - 10A
619918006	GWMP - 8A
619918007	Dup 1
1205394665	Method Blank (MB)
1205394666	619993004(MW-19S) Sample Duplicate (DUP)
1205394667	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Homogenous Matrix**

Samples 619918002 (GWMP - 6A), 619918003 (GWMP - 12A), 619918004 (GWMP - 11A), 619918005 (GWMP - 10A), 619918006 (GWMP - 8A) and 619918007 (Dup 1) were non-homogenous matrix. Orange shades and cloudy 619918002 (GWMP - 6A), 619918003 (GWMP - 12A), 619918004 (GWMP - 11A), 619918005 (GWMP - 10A), 619918006 (GWMP - 8A) and 619918007 (Dup 1).

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2423869

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
619918001	GWMP - 9A

619918002	GWMP - 6A
619918003	GWMP - 12A
619918004	GWMP - 11A
619918005	GWMP - 10A
619918006	GWMP - 8A
619918007	Dup 1
1205394547	Method Blank (MB)
1205394548	619993004(MW-19S) Sample Duplicate (DUP)
1205394549	619993004(MW-19S) Matrix Spike (MS)
1205394550	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Homogenous Matrix**

Samples 619918001 (GWMP - 9A), 619918002 (GWMP - 6A), 619918003 (GWMP - 12A), 619918004 (GWMP - 11A), 619918005 (GWMP - 10A), 619918006 (GWMP - 8A) and 619918007 (Dup 1) were non-homogenous matrix. Samples 619918001 (GWMP - 9A), 619918002 (GWMP - 6A), 619918003 (GWMP - 12A), 619918004 (GWMP - 11A), 619918005 (GWMP - 10A), 619918006 (GWMP - 8A) and 619918007 (Dup 1) were orange and cloudy.

**Miscellaneous Information**

**Additional Comments**

The matrix spike, 1205394549 (MW-19SMS), aliquot was reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**SECOND 2023 GROUNDWATER SAMPLING EVENT  
OCTOBER/NOVEMBER 2023**



right solutions.  
right partner.

---

10450 Stancliff Rd. Suite 210  
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December 13, 2023

Chris Schaefer  
Altamira  
525 central park Dr  
Suite 500  
Oklahoma City, OK 73013

Work Order: **HS23110405**

Laboratory Results for: **Evans & Associates, Big Fork Ranch**

Dear Chris Schaefer,

ALS Environmental received 11 sample(s) on Nov 04, 2023 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL

Anna Kinchen  
Project Manager

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**Work Order:** HS23110405

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23110405-03	GWMP-6A (filtered)	Water		02-Nov-2023 17:30	04-Nov-2023 08:45	<input checked="" type="checkbox"/>
HS23110405-04	GWMP-9A (filtered)	Water		02-Nov-2023 16:45	04-Nov-2023 08:45	<input checked="" type="checkbox"/>
HS23110405-05	GWMP-11A (filtered)	Water		02-Nov-2023 16:20	04-Nov-2023 08:45	<input checked="" type="checkbox"/>
HS23110405-06	GWMP-12A (filtered)	Water		02-Nov-2023 15:35	04-Nov-2023 08:45	<input checked="" type="checkbox"/>
HS23110405-07	GWMP-6A	Water		02-Nov-2023 17:30	04-Nov-2023 08:45	<input type="checkbox"/>
HS23110405-08	GWMP-8A	Water		02-Nov-2023 10:50	04-Nov-2023 08:45	<input type="checkbox"/>
HS23110405-09	GWMP-9A	Water		02-Nov-2023 16:45	04-Nov-2023 08:45	<input type="checkbox"/>
HS23110405-10	GWMP-10A	Water		02-Nov-2023 12:30	04-Nov-2023 08:45	<input type="checkbox"/>
HS23110405-11	GWMP-11A	Water		02-Nov-2023 16:20	04-Nov-2023 08:45	<input type="checkbox"/>
HS23110405-12	GWMP-12A	Water		02-Nov-2023 15:35	04-Nov-2023 08:45	<input type="checkbox"/>
HS23110405-13	DUP 1	Water		02-Nov-2023 00:00	04-Nov-2023 08:45	<input type="checkbox"/>

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**Work Order:** HS23110405

**CASE NARRATIVE**

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**Work Order Comments**

- Revised this report on 12-13-23 to remove samples HS23110405-01 and -02 Cell #8. Updated the Boron result for sample HS23110405-07 per client request.

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**Work Order Comments**

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.  
The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

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**Metals by Method SW7470A**

**Batch ID: 203672**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**Metals by Method SW6020A**

**Batch ID: 203373**

**Sample ID: HS23110389-05MS**

- MS/MSD and DUPs are for an unrelated sample

**Batch ID: 204594**

**Sample ID: HS23120431-04MS**

- MS and MSD and DUPs are for an unrelated sample

---

**WetChemistry by Method E300**

**Batch ID: R451971**

**Sample ID: GWMP-11A (HS23110405-11MS)**

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Sulfate)

**Sample ID: GWMP-6A (HS23110405-07MS)**

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Sulfate)

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**WetChemistry by Method SM4500H+ B**

**Batch ID: R451817**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**WetChemistry by Method M2540C**

**Batch ID: R451353**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: GWMP-6A  
 Collection Date: 02-Nov-2023 17:30

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-07  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	U		0.000400	0.00200	mg/L	1	14-Nov-2023 00:48
<b>Arsenic</b>	<b>0.000810</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
<b>Barium</b>	<b>0.262</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
Beryllium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:48
<b>Boron</b>	<b>0.132</b>		<b>0.0110</b>	<b>0.0200</b>	<b>mg/L</b>	1	11-Dec-2023 23:07
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:48
<b>Calcium</b>	<b>98.1</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
Chromium	U		0.000400	0.00400	mg/L	1	14-Nov-2023 00:48
<b>Cobalt</b>	<b>0.000708</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
<b>Lead</b>	<b>0.00152</b>	J	<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
<b>Lithium</b>	<b>0.00761</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
<b>Molybdenum</b>	<b>0.000616</b>	J	<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
<b>Selenium</b>	<b>0.00901</b>		<b>0.00110</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:48
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:48
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:11
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>2.74</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 10:33
<b>Fluoride</b>	<b>0.394</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	15-Nov-2023 10:33
<b>Sulfate</b>	<b>75.1</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 10:33
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	384		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
pH	8.10	H	0.100	0.100	pH Units	1	14-Nov-2023 12:56
Temp Deg C @pH	18.6	H	0	0	°C	1	14-Nov-2023 12:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1



Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: GWMP-8A  
 Collection Date: 02-Nov-2023 10:50

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-08  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	U		0.000400	0.00200	mg/L	1	14-Nov-2023 00:50
<b>Arsenic</b>	<b>0.000747</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Barium</b>	<b>0.286</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
Beryllium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:50
<b>Boron</b>	<b>0.147</b>		<b>0.0110</b>	<b>0.0200</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:50
<b>Calcium</b>	<b>85.9</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Chromium</b>	<b>0.00465</b>		<b>0.000400</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Cobalt</b>	<b>0.00105</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Lead</b>	<b>0.00304</b>		<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Lithium</b>	<b>0.0102</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Molybdenum</b>	<b>0.000643</b>	J	<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
<b>Selenium</b>	<b>0.00588</b>		<b>0.00110</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:50
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:50
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:21
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>8.42</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 11:51
<b>Fluoride</b>	<b>0.307</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	15-Nov-2023 11:51
<b>Sulfate</b>	<b>55.2</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 11:51
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	354		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
pH	8.11	H	0.100	0.100	pH Units	1	14-Nov-2023 12:58
Temp Deg C @pH	18.8	H	0	0	°C	1	14-Nov-2023 12:58

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: GWMP-9A  
 Collection Date: 02-Nov-2023 16:45

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-09  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	U		0.000400	0.00200	mg/L	1	14-Nov-2023 00:51
<b>Arsenic</b>	<b>0.000935</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
<b>Barium</b>	<b>0.0593</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
Beryllium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:51
<b>Boron</b>	<b>0.947</b>		<b>0.0110</b>	<b>0.0200</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:51
<b>Calcium</b>	<b>32.1</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
Chromium	U		0.000400	0.00400	mg/L	1	14-Nov-2023 00:51
<b>Cobalt</b>	<b>0.000345</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
<b>Lead</b>	<b>0.000731</b>	J	<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
<b>Lithium</b>	<b>0.0169</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
<b>Molybdenum</b>	<b>0.00489</b>	J	<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:51
Selenium	U		0.00110	0.00200	mg/L	1	14-Nov-2023 00:51
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:51
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:23
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>17.3</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 11:57
<b>Fluoride</b>	<b>0.792</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	15-Nov-2023 11:57
<b>Sulfate</b>	<b>123</b>		<b>0.400</b>	<b>1.00</b>	<b>mg/L</b>	2	15-Nov-2023 14:50
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	456		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
<b>pH</b>	<b>8.33</b>	H	<b>0.100</b>	<b>0.100</b>	<b>pH Units</b>	1	14-Nov-2023 13:11
Temp Deg C @pH	17.9	H	0	0	°C	1	14-Nov-2023 13:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: GWMP-10A  
 Collection Date: 02-Nov-2023 12:30

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-10  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	0.000457	J	0.000400	0.00200	mg/L	1	14-Nov-2023 00:53
Arsenic	0.00224		0.000400	0.00200	mg/L	1	14-Nov-2023 00:53
Barium	0.0673		0.00190	0.00400	mg/L	1	14-Nov-2023 00:53
Beryllium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:53
Boron	2.00		0.220	0.400	mg/L	20	14-Nov-2023 14:30
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:53
Calcium	122		0.0340	0.500	mg/L	1	14-Nov-2023 00:53
Chromium	0.00206	J	0.000400	0.00400	mg/L	1	14-Nov-2023 00:53
Cobalt	0.00294	J	0.000200	0.00500	mg/L	1	14-Nov-2023 00:53
Lead	0.00274		0.000600	0.00200	mg/L	1	14-Nov-2023 00:53
Lithium	0.00652		0.00100	0.00500	mg/L	1	14-Nov-2023 00:53
Molybdenum	0.0129		0.000600	0.00500	mg/L	1	14-Nov-2023 00:53
Selenium	U		0.00110	0.00200	mg/L	1	14-Nov-2023 00:53
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:53
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:24
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
Chloride	31.8		0.200	0.500	mg/L	1	15-Nov-2023 12:03
Fluoride	0.696		0.0500	0.100	mg/L	1	15-Nov-2023 12:03
Sulfate	1,110		4.00	10.0	mg/L	20	15-Nov-2023 12:09
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	1,770		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
pH	7.85	H	0.100	0.100	pH Units	1	14-Nov-2023 13:13
Temp Deg C @pH	17.3	H	0	0	°C	1	14-Nov-2023 13:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: GWMP-11A  
 Collection Date: 02-Nov-2023 16:20

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-11  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	U		0.000400	0.00200	mg/L	1	14-Nov-2023 00:55
<b>Arsenic</b>	<b>0.000810</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
<b>Barium</b>	<b>0.372</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
Beryllium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:55
<b>Boron</b>	<b>0.103</b>		<b>0.0110</b>	<b>0.0200</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:55
<b>Calcium</b>	<b>92.5</b>		<b>0.0340</b>	<b>0.500</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
<b>Chromium</b>	<b>0.000405</b>	J	<b>0.000400</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
<b>Cobalt</b>	<b>0.000383</b>	J	<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
Lead	U		0.000600	0.00200	mg/L	1	14-Nov-2023 00:55
<b>Lithium</b>	<b>0.0113</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:55
Molybdenum	U		0.000600	0.00500	mg/L	1	14-Nov-2023 00:55
Selenium	U		0.00110	0.00200	mg/L	1	14-Nov-2023 00:55
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:55
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:26
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>4.84</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 10:51
<b>Fluoride</b>	<b>0.182</b>		<b>0.0500</b>	<b>0.100</b>	<b>mg/L</b>	1	15-Nov-2023 10:51
<b>Sulfate</b>	<b>41.2</b>		<b>0.200</b>	<b>0.500</b>	<b>mg/L</b>	1	15-Nov-2023 10:51
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	408		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
pH	7.87	H	0.100	0.100	pH Units	1	14-Nov-2023 13:16
Temp Deg C @pH	16.8	H	0	0	°C	1	14-Nov-2023 13:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: GWMP-12A  
 Collection Date: 02-Nov-2023 15:35

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-12  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	U		0.000400	0.00200	mg/L	1	14-Nov-2023 00:57
<b>Arsenic</b>	<b>0.00166</b>	J	<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:57
<b>Barium</b>	<b>0.0316</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:57
Beryllium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:57
<b>Boron</b>	<b>9.85</b>		<b>1.10</b>	<b>2.00</b>	<b>mg/L</b>	100	14-Nov-2023 14:32
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:57
<b>Calcium</b>	<b>216</b>		<b>3.40</b>	<b>50.0</b>	<b>mg/L</b>	100	14-Nov-2023 14:32
Chromium	U		0.000400	0.00400	mg/L	1	14-Nov-2023 00:57
<b>Cobalt</b>	<b>0.00969</b>		<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:57
Lead	U		0.000600	0.00200	mg/L	1	14-Nov-2023 00:57
<b>Lithium</b>	<b>0.00490</b>	J	<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:57
<b>Molybdenum</b>	<b>0.0263</b>		<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:57
Selenium	U		0.00110	0.00200	mg/L	1	14-Nov-2023 00:57
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:57
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:28
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>85.4</b>		<b>0.400</b>	<b>1.00</b>	<b>mg/L</b>	2	15-Nov-2023 12:15
<b>Fluoride</b>	<b>0.769</b>		<b>0.100</b>	<b>0.200</b>	<b>mg/L</b>	2	15-Nov-2023 12:15
<b>Sulfate</b>	<b>2,590</b>		<b>8.00</b>	<b>20.0</b>	<b>mg/L</b>	40	15-Nov-2023 12:21
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	3,430		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
pH	7.37	H	0.100	0.100	pH Units	1	14-Nov-2023 13:18
Temp Deg C @pH	16.7	H	0	0	°C	1	14-Nov-2023 13:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Client: Altamira  
 Project: Evans & Associates, Big Fork Ranch  
 Sample ID: DUP 1  
 Collection Date: 02-Nov-2023 00:00

**ANALYTICAL REPORT**  
 WorkOrder:HS23110405  
 Lab ID:HS23110405-13  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>ICP-MS METALS BY SW6020A</b>		<b>Method:SW6020A</b>		Prep:SW3010A / 11-Nov-2023		Analyst: MSC	
Antimony	U		0.000400	0.00200	mg/L	1	14-Nov-2023 00:59
<b>Arsenic</b>	<b>0.0118</b>		<b>0.000400</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Barium</b>	<b>0.0320</b>		<b>0.00190</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Beryllium</b>	<b>0.000270</b>	J	<b>0.000200</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Boron</b>	<b>9.87</b>		<b>1.10</b>	<b>2.00</b>	<b>mg/L</b>	100	14-Nov-2023 14:34
Cadmium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:59
<b>Calcium</b>	<b>268</b>		<b>3.40</b>	<b>50.0</b>	<b>mg/L</b>	100	14-Nov-2023 14:34
<b>Chromium</b>	<b>0.00132</b>	J	<b>0.000400</b>	<b>0.00400</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Cobalt</b>	<b>0.0163</b>		<b>0.000200</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Lead</b>	<b>0.00495</b>		<b>0.000600</b>	<b>0.00200</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Lithium</b>	<b>0.00504</b>		<b>0.00100</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
<b>Molybdenum</b>	<b>0.0255</b>		<b>0.000600</b>	<b>0.00500</b>	<b>mg/L</b>	1	14-Nov-2023 00:59
Selenium	U		0.00110	0.00200	mg/L	1	14-Nov-2023 00:59
Thallium	U		0.000200	0.00200	mg/L	1	14-Nov-2023 00:59
<b>MERCURY BY SW7470A</b>		<b>Method:SW7470A</b>		Prep:SW7470A / 17-Nov-2023		Analyst: JS	
Mercury	U		0.0000300	0.000200	mg/L	1	17-Nov-2023 13:30
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>				Analyst: TH	
<b>Chloride</b>	<b>83.4</b>		<b>0.400</b>	<b>1.00</b>	<b>mg/L</b>	2	15-Nov-2023 12:27
<b>Fluoride</b>	<b>0.745</b>		<b>0.100</b>	<b>0.200</b>	<b>mg/L</b>	2	15-Nov-2023 12:27
<b>Sulfate</b>	<b>2,600</b>		<b>8.00</b>	<b>20.0</b>	<b>mg/L</b>	40	15-Nov-2023 12:33
<b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b>		<b>Method:M2540C</b>				Analyst: DC	
Total Dissolved Solids (Residue, Filterable)	3,400		5.00	10.0	mg/L	1	08-Nov-2023 11:30
<b>PH BY SM4500H+ B-2011</b>		<b>Method:SM4500H+ B</b>				Analyst: DW	
pH	7.32	H	0.100	0.100	pH Units	1	14-Nov-2023 13:20
Temp Deg C @pH	17.1	H	0	0	°C	1	14-Nov-2023 13:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Revision: 1

Weight / Prep Log

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**Batch ID:** 203373      **Start Date:** 11 Nov 2023 09:30      **End Date:** 11 Nov 2023 09:30  
**Method:** WATER - SW3010A      **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23110405-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-13		10 (mL)	10 (mL)	1	120 plastic HNO3

**Batch ID:** 203672      **Start Date:** 17 Nov 2023 08:30      **End Date:** 17 Nov 2023 08:30  
**Method:** MERCURY PREP BY 7470A- WATER      **Prep Code:** HG\_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23110405-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-13		10 (mL)	10 (mL)	1	120 plastic HNO3

**Batch ID:** 204594      **Start Date:** 09 Dec 2023 08:30      **End Date:** 09 Dec 2023 08:30  
**Method:** WATER - SW3010A      **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23110405-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23110405-13		10 (mL)	10 (mL)	1	120 plastic HNO3

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID: 203373 ( 0 )</b>		<b>Test Name : ICP-MS METALS BY SW6020A</b>			<b>Matrix: Water</b>	
HS23110405-07	GWMP-6A	02 Nov 2023 17:30		11 Nov 2023 09:30	14 Nov 2023 00:48	1
HS23110405-08	GWMP-8A	02 Nov 2023 10:50		11 Nov 2023 09:30	14 Nov 2023 00:50	1
HS23110405-09	GWMP-9A	02 Nov 2023 16:45		11 Nov 2023 09:30	14 Nov 2023 00:51	1
HS23110405-10	GWMP-10A	02 Nov 2023 12:30		11 Nov 2023 09:30	14 Nov 2023 14:30	20
HS23110405-10	GWMP-10A	02 Nov 2023 12:30		11 Nov 2023 09:30	14 Nov 2023 00:53	1
HS23110405-11	GWMP-11A	02 Nov 2023 16:20		11 Nov 2023 09:30	14 Nov 2023 00:55	1
HS23110405-12	GWMP-12A	02 Nov 2023 15:35		11 Nov 2023 09:30	14 Nov 2023 14:32	100
HS23110405-12	GWMP-12A	02 Nov 2023 15:35		11 Nov 2023 09:30	14 Nov 2023 00:57	1
HS23110405-13	DUP 1	02 Nov 2023 00:00		11 Nov 2023 09:30	14 Nov 2023 14:34	100
HS23110405-13	DUP 1	02 Nov 2023 00:00		11 Nov 2023 09:30	14 Nov 2023 00:59	1
<b>Batch ID: 203672 ( 0 )</b>		<b>Test Name : MERCURY BY SW7470A</b>			<b>Matrix: Water</b>	
HS23110405-07	GWMP-6A	02 Nov 2023 17:30		17 Nov 2023 08:30	17 Nov 2023 13:11	1
HS23110405-08	GWMP-8A	02 Nov 2023 10:50		17 Nov 2023 08:30	17 Nov 2023 13:21	1
HS23110405-09	GWMP-9A	02 Nov 2023 16:45		17 Nov 2023 08:30	17 Nov 2023 13:23	1
HS23110405-10	GWMP-10A	02 Nov 2023 12:30		17 Nov 2023 08:30	17 Nov 2023 13:24	1
HS23110405-11	GWMP-11A	02 Nov 2023 16:20		17 Nov 2023 08:30	17 Nov 2023 13:26	1
HS23110405-12	GWMP-12A	02 Nov 2023 15:35		17 Nov 2023 08:30	17 Nov 2023 13:28	1
HS23110405-13	DUP 1	02 Nov 2023 00:00		17 Nov 2023 08:30	17 Nov 2023 13:30	1
<b>Batch ID: 204594 ( 0 )</b>		<b>Test Name : ICP-MS METALS BY SW6020A</b>			<b>Matrix: Water</b>	
HS23110405-07	GWMP-6A	02 Nov 2023 17:30		09 Dec 2023 08:30	11 Dec 2023 23:07	1
<b>Batch ID: R451353 ( 0 )</b>		<b>Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>			<b>Matrix: Water</b>	
HS23110405-07	GWMP-6A	02 Nov 2023 17:30			08 Nov 2023 11:30	1
HS23110405-08	GWMP-8A	02 Nov 2023 10:50			08 Nov 2023 11:30	1
HS23110405-09	GWMP-9A	02 Nov 2023 16:45			08 Nov 2023 11:30	1
HS23110405-10	GWMP-10A	02 Nov 2023 12:30			08 Nov 2023 11:30	1
HS23110405-11	GWMP-11A	02 Nov 2023 16:20			08 Nov 2023 11:30	1
HS23110405-12	GWMP-12A	02 Nov 2023 15:35			08 Nov 2023 11:30	1
HS23110405-13	DUP 1	02 Nov 2023 00:00			08 Nov 2023 11:30	1
<b>Batch ID: R451817 ( 0 )</b>		<b>Test Name : PH BY SM4500H+ B-2011</b>			<b>Matrix: Water</b>	
HS23110405-07	GWMP-6A	02 Nov 2023 17:30			14 Nov 2023 12:56	1
HS23110405-08	GWMP-8A	02 Nov 2023 10:50			14 Nov 2023 12:58	1
HS23110405-09	GWMP-9A	02 Nov 2023 16:45			14 Nov 2023 13:11	1
HS23110405-10	GWMP-10A	02 Nov 2023 12:30			14 Nov 2023 13:13	1
HS23110405-11	GWMP-11A	02 Nov 2023 16:20			14 Nov 2023 13:16	1
HS23110405-12	GWMP-12A	02 Nov 2023 15:35			14 Nov 2023 13:18	1
HS23110405-13	DUP 1	02 Nov 2023 00:00			14 Nov 2023 13:20	1



**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> R451971 ( 0 )		<b>Test Name :</b> ANIONS BY E300.0, REV 2.1, 1993			<b>Matrix:</b> Water	
HS23110405-07	GWMP-6A	02 Nov 2023 17:30			15 Nov 2023 10:33	1
HS23110405-08	GWMP-8A	02 Nov 2023 10:50			15 Nov 2023 11:51	1
HS23110405-09	GWMP-9A	02 Nov 2023 16:45			15 Nov 2023 14:50	2
HS23110405-09	GWMP-9A	02 Nov 2023 16:45			15 Nov 2023 11:57	1
HS23110405-10	GWMP-10A	02 Nov 2023 12:30			15 Nov 2023 12:09	20
HS23110405-10	GWMP-10A	02 Nov 2023 12:30			15 Nov 2023 12:03	1
HS23110405-11	GWMP-11A	02 Nov 2023 16:20			15 Nov 2023 10:51	1
HS23110405-12	GWMP-12A	02 Nov 2023 15:35			15 Nov 2023 12:21	40
HS23110405-12	GWMP-12A	02 Nov 2023 15:35			15 Nov 2023 12:15	2
HS23110405-13	DUP 1	02 Nov 2023 00:00			15 Nov 2023 12:33	40
HS23110405-13	DUP 1	02 Nov 2023 00:00			15 Nov 2023 12:27	2

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

<b>Batch ID:</b> 203373 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> ICP-MS METALS BY SW6020A								
<b>MBLK</b>	Sample ID: <b>MBLK-203373</b>	Units: <b>mg/L</b>	Analysis Date: <b>13-Nov-2023 12:58</b>							
Client ID:	Run ID: <b>ICPMS06_451637</b>	SeqNo: <b>7670726</b>	PrepDate: <b>11-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Antimony	U	0.00200								
Arsenic	U	0.00200								
Barium	U	0.00400								
Beryllium	U	0.00200								
Boron	U	0.0200								
Cadmium	U	0.00200								
Calcium	U	0.500								
Chromium	U	0.00400								
Cobalt	U	0.00500								
Lead	U	0.00200								
Lithium	U	0.00500								
Molybdenum	U	0.00500								
Selenium	U	0.00200								
Thallium	U	0.00200								

<b>LCS</b>	Sample ID: <b>LCS-203373</b>	Units: <b>mg/L</b>	Analysis Date: <b>13-Nov-2023 13:03</b>							
Client ID:	Run ID: <b>ICPMS06_451637</b>	SeqNo: <b>7670715</b>	PrepDate: <b>11-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Antimony	0.04344	0.00200	0.05	0	86.9	80 - 120				
Arsenic	0.0438	0.00200	0.05	0	87.6	80 - 120				
Barium	0.04415	0.00400	0.05	0	88.3	80 - 120				
Beryllium	0.04099	0.00200	0.05	0	82.0	80 - 120				
Boron	0.4523	0.0200	0.5	0	90.5	80 - 120				
Cadmium	0.04386	0.00200	0.05	0	87.7	80 - 120				
Calcium	4.489	0.500	5	0	89.8	80 - 120				
Chromium	0.04364	0.00400	0.05	0	87.3	80 - 120				
Cobalt	0.04544	0.00500	0.05	0	90.9	80 - 120				
Lead	0.04361	0.00200	0.05	0	87.2	80 - 120				
Lithium	0.08986	0.00500	0.1	0	89.9	80 - 120				
Molybdenum	0.04278	0.00500	0.05	0	85.6	80 - 120				
Selenium	0.04358	0.00200	0.05	0	87.2	80 - 120				
Thallium	0.04192	0.00200	0.05	0	83.8	80 - 120				

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

<b>Batch ID:</b> 203373 ( 0 )	<b>Instrument:</b> ICPMS06	<b>Method:</b> ICP-MS METALS BY SW6020A								
<b>MS</b>	Sample ID: <b>HS23110389-05MS</b>	Units: <b>mg/L</b>	Analysis Date: <b>14-Nov-2023 00:18</b>							
Client ID:	Run ID: <b>ICPMS06_451637</b>	SeqNo: <b>7672116</b>	PrepDate: <b>11-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	0.04878	0.00200	0.05	0.000084	97.4	80 - 120				
Arsenic	0.1221	0.00200	0.05	0.07107	102	80 - 120				
Barium	0.6661	0.00400	0.05	0.6038	125	80 - 120				SO
Beryllium	0.05058	0.00200	0.05	0.000085	101	80 - 120				
Boron	0.6224	0.0200	0.5	0.1087	103	80 - 120				
Cadmium	0.04779	0.00200	0.05	0.000029	95.5	80 - 120				
Calcium	147.2	0.500	5	139.4	155	80 - 120				SO
Chromium	0.04874	0.00400	0.05	0.000831	95.8	80 - 120				
Cobalt	0.05386	0.00500	0.05	0.006709	94.3	80 - 120				
Lead	0.05031	0.00200	0.05	0.000497	99.6	80 - 120				
Lithium	0.1106	0.00500	0.1	0.00924	101	80 - 120				
Molybdenum	0.05207	0.00500	0.05	0.003286	97.6	80 - 120				
Selenium	0.05013	0.00200	0.05	0.000072	100	80 - 120				
Thallium	0.04791	0.00200	0.05	0.000131	95.6	80 - 120				

<b>MSD</b>	Sample ID: <b>HS23110389-05MSD</b>	Units: <b>mg/L</b>	Analysis Date: <b>14-Nov-2023 00:20</b>							
Client ID:	Run ID: <b>ICPMS06_451637</b>	SeqNo: <b>7672117</b>	PrepDate: <b>11-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Antimony	0.04813	0.00200	0.05	0.000084	96.1	80 - 120	0.04878	1.34	20	
Arsenic	0.1209	0.00200	0.05	0.07107	99.6	80 - 120	0.1221	1.01	20	
Barium	0.6682	0.00400	0.05	0.6038	129	80 - 120	0.6661	0.316	20	SO
Beryllium	0.0496	0.00200	0.05	0.000085	99.0	80 - 120	0.05058	1.96	20	
Boron	0.6093	0.0200	0.5	0.1087	100	80 - 120	0.6224	2.11	20	
Cadmium	0.04864	0.00200	0.05	0.000029	97.2	80 - 120	0.04779	1.76	20	
Calcium	145	0.500	5	139.4	112	80 - 120	147.2	1.49	20	O
Chromium	0.04776	0.00400	0.05	0.000831	93.9	80 - 120	0.04874	2.04	20	
Cobalt	0.05289	0.00500	0.05	0.006709	92.4	80 - 120	0.05386	1.8	20	
Lead	0.05032	0.00200	0.05	0.000497	99.7	80 - 120	0.05031	0.0199	20	
Lithium	0.1097	0.00500	0.1	0.00924	101	80 - 120	0.1106	0.762	20	
Molybdenum	0.053	0.00500	0.05	0.003286	99.4	80 - 120	0.05207	1.77	20	
Selenium	0.04879	0.00200	0.05	0.000072	97.4	80 - 120	0.05013	2.71	20	
Thallium	0.0487	0.00200	0.05	0.000131	97.1	80 - 120	0.04791	1.62	20	

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

Batch ID: 203373 ( 0 )		Instrument: ICPMS06			Method: ICP-MS METALS BY SW6020A					
<b>PDS</b>	Sample ID: <b>HS23110389-05PDS</b>	Units: <b>mg/L</b>			Analysis Date: <b>14-Nov-2023 00:21</b>					
Client ID:	Run ID: <b>ICPMS06_451637</b>	SeqNo: <b>7672118</b>		PrepDate: <b>11-Nov-2023</b>		DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09505	0.00200	0.1	0.000084	95.0	75 - 125				
Arsenic	0.165	0.00200	0.1	0.07107	93.9	75 - 125				
Barium	0.6767	0.00400	0.1	0.6038	72.9	75 - 125				SO
Beryllium	0.09638	0.00200	0.1	0.000085	96.3	75 - 125				
Boron	0.6181	0.0200	0.5	0.1087	102	75 - 125				
Cadmium	0.09349	0.00200	0.1	0.000029	93.5	75 - 125				
Calcium	142.6	0.500	10	139.4	32.4	75 - 125				SO
Chromium	0.09224	0.00400	0.1	0.000831	91.4	75 - 125				
Cobalt	0.09511	0.00500	0.1	0.006709	88.4	75 - 125				
Lead	0.096	0.00200	0.1	0.000497	95.5	75 - 125				
Lithium	0.1042	0.00500	0.1	0.00924	94.9	70 - 125				
Molybdenum	0.09973	0.00500	0.1	0.003286	96.4	75 - 125				
Selenium	0.09796	0.00200	0.1	0.000072	97.9	75 - 125				
Thallium	0.09797	0.00200	0.1	0.000131	97.8	75 - 125				

<b>SD</b>	Sample ID: <b>HS23110389-05SD</b>	Units: <b>mg/L</b>			Analysis Date: <b>14-Nov-2023 00:16</b>					
Client ID:	Run ID: <b>ICPMS06_451637</b>	SeqNo: <b>7672115</b>		PrepDate: <b>11-Nov-2023</b>		DF: <b>5</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	U	0.0100					0.000084		0 10	
Arsenic	0.07086	0.0100					0.07107	0.303	10	
Barium	0.6097	0.0200					0.6038	0.971	10	
Beryllium	U	0.0100					0.000085		0 10	
Cadmium	U	0.0100					0.000029		0 10	
Calcium	147.3	2.50					139.4	5.68	10	
Chromium	U	0.0200					0.000831		0 10	
Cobalt	0.006819	0.0250					0.006709		0 10	J
Lead	U	0.0100					0.000497		0 10	
Lithium	0.01512	0.0250					0.00924		0 10	J
Molybdenum	0.003124	0.0250					0.003286		0 10	J
Selenium	U	0.0100					0.000072		0 10	
Thallium	U	0.0100					0.000131		0 10	

The following samples were analyzed in this batch: 

HS23110405-07	HS23110405-08	HS23110405-09	HS23110405-10
HS23110405-11	HS23110405-12	HS23110405-13	

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

<b>Batch ID:</b> 203672 ( 0 )	<b>Instrument:</b> HG04	<b>Method:</b> MERCURY BY SW7470A
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<b>MBLK</b>	Sample ID: <b>MBLK-203672</b>	Units: <b>mg/L</b>	Analysis Date: <b>17-Nov-2023 13:02</b>							
Client ID:	Run ID: <b>HG04_452122</b>	SeqNo: <b>7680536</b>	PrepDate: <b>17-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury U 0.000200

<b>LCS</b>	Sample ID: <b>LCS-203672</b>	Units: <b>mg/L</b>	Analysis Date: <b>17-Nov-2023 13:04</b>							
Client ID:	Run ID: <b>HG04_452122</b>	SeqNo: <b>7680537</b>	PrepDate: <b>17-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00534 0.000200 0.005 0 107 80 - 120

<b>MS</b>	Sample ID: <b>HS23110405-07MS</b>	Units: <b>mg/L</b>	Analysis Date: <b>17-Nov-2023 13:12</b>							
Client ID: <b>GWMP-6A</b>	Run ID: <b>HG04_452122</b>	SeqNo: <b>7680542</b>	PrepDate: <b>17-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.00475 0.000200 0.005 -0.000007 95.1 75 - 125

<b>MSD</b>	Sample ID: <b>HS23110405-07MSD</b>	Units: <b>mg/L</b>	Analysis Date: <b>17-Nov-2023 13:14</b>							
Client ID: <b>GWMP-6A</b>	Run ID: <b>HG04_452122</b>	SeqNo: <b>7680543</b>	PrepDate: <b>17-Nov-2023</b> DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual

Mercury 0.0049 0.000200 0.005 -0.000007 98.1 75 - 125 0.00475 3.11 20

<b>The following samples were analyzed in this batch:</b>	HS23110405-07	HS23110405-08	HS23110405-09	HS23110405-10
	HS23110405-11	HS23110405-12	HS23110405-13	

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

Batch ID: 204594 ( 0 )		Instrument: ICPMS06		Method: ICP-MS METALS BY SW6020A						
<b>MBLK</b>	Sample ID: <b>MBLK-204594</b>	Units: <b>mg/L</b>			Analysis Date: <b>11-Dec-2023 22:27</b>					
Client ID:	Run ID: <b>ICPMS06_453755</b>	SeqNo: <b>7719933</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.00200								
Arsenic	U	0.00200								
Barium	U	0.00400								
Beryllium	U	0.00200								
Boron	U	0.0200								
Cadmium	U	0.00200								
Calcium	U	0.500								
Chromium	0.000565	0.00400								J
Cobalt	U	0.00500								
Lead	U	0.00200								
Lithium	U	0.00500								
Molybdenum	U	0.00500								
Selenium	U	0.00200								
Thallium	U	0.00200								

<b>LCS</b>	Sample ID: <b>LCS-204594</b>	Units: <b>mg/L</b>			Analysis Date: <b>11-Dec-2023 22:29</b>					
Client ID:	Run ID: <b>ICPMS06_453755</b>	SeqNo: <b>7719934</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>1</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04562	0.00200	0.05	0	91.2	80 - 120				
Arsenic	0.04607	0.00200	0.05	0	92.1	80 - 120				
Barium	0.04549	0.00400	0.05	0	91.0	80 - 120				
Beryllium	0.04538	0.00200	0.05	0	90.8	80 - 120				
Boron	0.4436	0.0200	0.5	0	88.7	80 - 120				
Cadmium	0.04512	0.00200	0.05	0	90.2	80 - 120				
Calcium	4.75	0.500	5	0	95.0	80 - 120				
Chromium	0.04516	0.00400	0.05	0	90.3	80 - 120				
Cobalt	0.0449	0.00500	0.05	0	89.8	80 - 120				
Lead	0.04541	0.00200	0.05	0	90.8	80 - 120				
Lithium	0.09469	0.00500	0.1	0	94.7	80 - 120				
Molybdenum	0.04457	0.00500	0.05	0	89.1	80 - 120				
Selenium	0.04727	0.00200	0.05	0	94.5	80 - 120				
Thallium	0.04261	0.00200	0.05	0	85.2	80 - 120				

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

Batch ID: 204594 ( 0 )		Instrument: ICPMS06			Method: ICP-MS METALS BY SW6020A					
<b>MS</b>	Sample ID: <b>HS23120431-04MS</b>	Units: <b>mg/L</b>			Analysis Date: <b>12-Dec-2023 11:58</b>					
Client ID:	Run ID: <b>ICPMS06_453861</b>	SeqNo: <b>7721144</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>2</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04431	0.00400	0.05	0	88.6	80 - 120				
Arsenic	0.05176	0.00400	0.05	0.005443	92.6	80 - 120				
Barium	0.11	0.00800	0.05	0.06209	95.9	80 - 120				
Beryllium	0.04576	0.00400	0.05	0	91.5	80 - 120				
Boron	2.64	0.0400	0.5	2.043	119	80 - 120				EO
Cadmium	0.04598	0.00400	0.05	0	92.0	80 - 120				
Calcium	798.9	1.00	5	742.9	1120	80 - 120				SEO
Chromium	0.04692	0.00800	0.05	0.002418	89.0	80 - 120				
Cobalt	0.04919	0.0100	0.05	0.004002	90.4	80 - 120				
Lead	0.04513	0.00400	0.05	0	90.3	80 - 120				
Lithium	0.227	0.0100	0.1	0.1212	106	80 - 120				
Molybdenum	0.05019	0.0100	0.05	0	100	80 - 120				
Selenium	0.06005	0.00400	0.05	0.01084	98.4	80 - 120				
Thallium	0.04221	0.00400	0.05	0	84.4	80 - 120				

<b>MSD</b>	Sample ID: <b>HS23120431-04MSD</b>	Units: <b>mg/L</b>			Analysis Date: <b>12-Dec-2023 12:00</b>					
Client ID:	Run ID: <b>ICPMS06_453861</b>	SeqNo: <b>7721145</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>2</b>				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04445	0.00400	0.05	0	88.9	80 - 120	0.04431	0.309	20	
Arsenic	0.05084	0.00400	0.05	0.005443	90.8	80 - 120	0.05176	1.8	20	
Barium	0.1077	0.00800	0.05	0.06209	91.3	80 - 120	0.11	2.12	20	
Beryllium	0.04383	0.00400	0.05	0	87.7	80 - 120	0.04576	4.29	20	
Boron	2.613	0.0400	0.5	2.043	114	80 - 120	2.64	1.01	20	EO
Cadmium	0.04635	0.00400	0.05	0	92.7	80 - 120	0.04598	0.793	20	
Calcium	798.4	1.00	5	742.9	1110	80 - 120	798.9	0.0575	20	SEO
Chromium	0.0473	0.00800	0.05	0.002418	89.8	80 - 120	0.04692	0.817	20	
Cobalt	0.04935	0.0100	0.05	0.004002	90.7	80 - 120	0.04919	0.327	20	
Lead	0.04505	0.00400	0.05	0	90.1	80 - 120	0.04513	0.169	20	
Lithium	0.2212	0.0100	0.1	0.1212	100.0	80 - 120	0.227	2.6	20	
Molybdenum	0.04897	0.0100	0.05	0	97.9	80 - 120	0.05019	2.47	20	
Selenium	0.0565	0.00400	0.05	0.01084	91.3	80 - 120	0.06005	6.08	20	
Thallium	0.04241	0.00400	0.05	0	84.8	80 - 120	0.04221	0.475	20	

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

**Batch ID:** 204594 ( 0 )      **Instrument:** ICPMS06      **Method:** ICP-MS METALS BY SW6020A

<b>PDS</b>		Sample ID: <b>HS23120431-04PDS</b>			Units: <b>mg/L</b>		Analysis Date: <b>12-Dec-2023 12:02</b>			
Client ID:		Run ID: <b>ICPMS06_453861</b>			SeqNo: <b>7721146</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08735	0.00400	0.1	0	87.3	75 - 125				
Arsenic	0.09755	0.00400	0.1	0.005443	92.1	75 - 125				
Barium	0.1518	0.00800	0.1	0.06209	89.7	75 - 125				
Beryllium	0.08662	0.00400	0.1	0	86.6	75 - 125				
Cadmium	0.09108	0.00400	0.1	0	91.1	75 - 125				
Chromium	0.09261	0.00800	0.1	0.002418	90.2	75 - 125				
Cobalt	0.09427	0.0100	0.1	0.004002	90.3	75 - 125				
Lead	0.09021	0.00400	0.1	0	90.2	75 - 125				
Lithium	0.2197	0.0100	0.1	0.1212	98.5	70 - 125				
Molybdenum	0.09609	0.0100	0.1	0	96.1	75 - 125				
Selenium	0.1043	0.00400	0.1	0.01084	93.5	75 - 125				
Thallium	0.08486	0.00400	0.1	0	84.9	75 - 125				

<b>PDS</b>		Sample ID: <b>HS23120431-04PDS</b>			Units: <b>mg/L</b>		Analysis Date: <b>11-Dec-2023 22:59</b>			
Client ID:		Run ID: <b>ICPMS06_453755</b>			SeqNo: <b>7719942</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	6.68	0.200	5	1.968	94.2	75 - 125				
Calcium	1001	5.00	100	823.4	177	75 - 125				SO

Revision: 1



**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

Batch ID: 204594 ( 0 )		Instrument: ICPMS06		Method: ICP-MS METALS BY SW6020A					
<b>SD</b>	Sample ID: <b>HS23120431-04SD</b>	Units: <b>mg/L</b>		Analysis Date: <b>12-Dec-2023 11:56</b>					
Client ID:	Run ID: <b>ICPMS06_453861</b>	SeqNo: <b>7721143</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>10</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit Qual
Antimony	U	0.0200					0.000254	0	10
Arsenic	0.005645	0.0200					0.005443	0	10 J
Barium	0.06436	0.0400					0.06209	3.66	10
Beryllium	U	0.0200					-0.000016	0	10
Boron	2.166	0.200					2.043	6.02	10
Cadmium	U	0.0200					-0.000013	0	10
Calcium	771.7	5.00					742.9	3.88	10
Chromium	0.004394	0.0400					0.002418	0	10 J
Cobalt	0.004179	0.0500					0.004002	0	10 J
Lead	U	0.0200					0.000078	0	10
Lithium	0.1243	0.0500					0.1212	2.6	10
Molybdenum	U	0.0500					0.000547	0	10
Selenium	U	0.0200					0.01084	0	10
Thallium	U	0.0200					0.000254	0	10

<b>SD</b>	Sample ID: <b>HS23120431-04SD</b>	Units: <b>mg/L</b>		Analysis Date: <b>11-Dec-2023 22:53</b>					
Client ID:	Run ID: <b>ICPMS06_453755</b>	SeqNo: <b>7719939</b>		PrepDate: <b>09-Dec-2023</b>		DF: <b>50</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit Qual
Boron	2.076	1.00					1.968	5.48	10
Calcium	795.9	25.0					823.4	3.34	10

The following samples were analyzed in this batch: HS23110405-07

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

**Batch ID:** R451353 ( 0 )      **Instrument:** Balance1      **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

<b>MBLK</b>	Sample ID: <b>WMBLK-11082023</b>	Units: <b>mg/L</b>		Analysis Date: <b>08-Nov-2023 11:30</b>						
Client ID:	Run ID: <b>Balance1_451353</b>	SeqNo: <b>7663351</b>		PrepDate:				DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable)      U      10.0

<b>LCS</b>	Sample ID: <b>WLCS-11082023</b>	Units: <b>mg/L</b>		Analysis Date: <b>08-Nov-2023 11:30</b>						
Client ID:	Run ID: <b>Balance1_451353</b>	SeqNo: <b>7663350</b>		PrepDate:				DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable)      1056      10.0      1000      0      106      85 - 115

<b>DUP</b>	Sample ID: <b>HS23110426-01DUP</b>	Units: <b>mg/L</b>		Analysis Date: <b>08-Nov-2023 11:30</b>						
Client ID:	Run ID: <b>Balance1_451353</b>	SeqNo: <b>7663345</b>		PrepDate:				DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable)      38      10.0                          40      5.13      20

<b>DUP</b>	Sample ID: <b>HS23110125-01DUP</b>	Units: <b>mg/L</b>		Analysis Date: <b>08-Nov-2023 11:30</b>						
Client ID:	Run ID: <b>Balance1_451353</b>	SeqNo: <b>7663329</b>		PrepDate:				DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable)      1158      10.0                          1158      0      20

The following samples were analyzed in this batch:

HS23110405-07	HS23110405-08	HS23110405-09	HS23110405-10
HS23110405-11	HS23110405-12	HS23110405-13	

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

**Batch ID:** R451817 ( 0 )      **Instrument:** Skalar 03      **Method:** PH BY SM4500H+ B-2011

<b>DUP</b>	Sample ID: <b>HS23110867-01DUP</b>	Units: <b>pH Units</b>		Analysis Date: <b>14-Nov-2023 12:40</b>						
Client ID:	Run ID: <b>Skalar 03_451817</b>	SeqNo: <b>7674520</b>	PrepDate:	DF: <b>1</b>						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	5.89	0.100					5.87	0.34	10	
Temp Deg C @pH	17.7	0					18.4	3.88	10	

The following samples were analyzed in this batch:

HS23110405-07	HS23110405-08	HS23110405-09	HS23110405-10
HS23110405-11	HS23110405-12	HS23110405-13	

**Revision: 1**

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

**Batch ID:** R451971 ( 0 )      **Instrument:** ICS-Integrion      **Method:** ANIONS BY E300.0, REV 2.1, 1993

<b>MBLK</b>		Sample ID: <b>MBLK</b>		Units: <b>mg/L</b>		Analysis Date: <b>15-Nov-2023 09:52</b>			
Client ID:		Run ID: <b>ICS-Integrion_451971</b>		SeqNo: <b>7677489</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	U	0.500							
Fluoride	U	0.100							
Sulfate	U	0.500							

<b>LCS</b>		Sample ID: <b>LCS</b>		Units: <b>mg/L</b>		Analysis Date: <b>15-Nov-2023 09:58</b>			
Client ID:		Run ID: <b>ICS-Integrion_451971</b>		SeqNo: <b>7677490</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	19.33	0.500	20	0	96.7	90 - 110			
Fluoride	4.011	0.100	4	0	100	90 - 110			
Sulfate	20.99	0.500	20	0	105	90 - 110			

<b>MS</b>		Sample ID: <b>HS23110405-11MS</b>		Units: <b>mg/L</b>		Analysis Date: <b>15-Nov-2023 10:57</b>			
Client ID: <b>GWMP-11A</b>		Run ID: <b>ICS-Integrion_451971</b>		SeqNo: <b>7677495</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	15.49	0.500	10	4.841	106	80 - 120			
Fluoride	2.361	0.100	2	0.1825	109	80 - 120			
Sulfate	48.52	0.500	10	41.17	73.6	80 - 120			SO

<b>MS</b>		Sample ID: <b>HS23110405-07MS</b>		Units: <b>mg/L</b>		Analysis Date: <b>15-Nov-2023 10:39</b>			
Client ID: <b>GWMP-6A</b>		Run ID: <b>ICS-Integrion_451971</b>		SeqNo: <b>7677492</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	13.77	0.500	10	2.738	110	80 - 120			
Fluoride	2.53	0.100	2	0.3939	107	80 - 120			
Sulfate	79.4	0.500	10	75.12	42.8	80 - 120			SO

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QC BATCH REPORT**

**Batch ID:** R451971 ( 0 )      **Instrument:** ICS-Integrion      **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD		Sample ID: HS23110405-11MSD		Units: mg/L		Analysis Date: 15-Nov-2023 11:03				
Client ID: GWMP-11A		Run ID: ICS-Integrion_451971		SeqNo: 7677496		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	15.73	0.500	10	4.841	109	80 - 120	15.49	1.54	20	
Fluoride	2.398	0.100	2	0.1825	111	80 - 120	2.361	1.54	20	
Sulfate	49.37	0.500	10	41.17	82.1	80 - 120	48.52	1.74	20	O

MSD		Sample ID: HS23110405-07MSD		Units: mg/L		Analysis Date: 15-Nov-2023 10:45				
Client ID: GWMP-6A		Run ID: ICS-Integrion_451971		SeqNo: 7677493		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	13.99	0.500	10	2.738	113	80 - 120	13.77	1.58	20	
Fluoride	2.527	0.100	2	0.3939	107	80 - 120	2.53	0.111	20	
Sulfate	80.89	0.500	10	75.12	57.7	80 - 120	79.4	1.86	20	SO

The following samples were analyzed in this batch:

HS23110405-07	HS23110405-08	HS23110405-09	HS23110405-10
HS23110405-11	HS23110405-12	HS23110405-13	

Revision: 1

**Client:** Altamira  
**Project:** Evans & Associates, Big Fork Ranch  
**WorkOrder:** HS23110405

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

Sample Receipt Checklist

Work Order ID: HS23110405

Date/Time Received: 04-Nov-2023 08:45

Client Name: Enviro Clean Services-Tulsa

Received by: Corey Grandits

Completed By: /S/ Belinda Gomez	07-Nov-2023 14:42	Reviewed by: /S/ Anna Kinchen	08-Nov-2023 16:28
eSignature	Date/Time	eSignature	Date/Time

Matrices: w

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes  No  Not Present
- Chain of custody present? Yes  No  3 Page(s)
- Chain of custody signed when relinquished and received? Yes  No
- Samplers name present on COC? 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
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s):	11/7/23 1443	ir31
Cooler(s)/Kit(s):	lrg green	
Date/Time sample(s) sent to storage:	11/7/23 1443	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/> No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:


Contacted By: Regarding:

Comments: [Empty text box]


Corrective Action: [Empty text box]



CHAIN OF CUSTODY RECORD

		PROJECT NUMBER: EMEEOK2023/4000				PROJECT NAME: Evans & Associates / Big Fork Ranch				COC: <u>1</u> of <u>1</u>			
		CLIENT CONTACT: Christopher Schaefer				CLIENT EMAIL: Chris.Schaefer@altamira-us.com Lab data				CLIENT PHONE: 405-255-7538			
LABORATORY / LAB PM: ALS		CLIENT ADDRESS: 525 Central Park Dr Suite 500 OKC, OK, 73105				TAT: STD							
LAB ADDRESS: 10450 Standcliff Rd Suite 210 Houston, TX 77099		SPECIAL INSTRUCTIONS: Containers 2 x 120ml HNO3 (1 Filtered, 1 unfiltered) 2 x 250 ml Neat (1 Filtered, 1 unfiltered)				PARAMETERS							
SHIPMENT METHOD: Fedex		TRACKING: 6220 8005 9754				NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	PH (SM4500 H+B)	Cl, F, SO4, (F300)	Hg (7470A)	TDS (SM25403)	*Metals, Total (6020A)	HOLD
NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.								
1	Cell #8 (standing water)	11/2/23	1800	W	see above	4	4(0)	X	X	X	X		
2													
3													
4													
5	* Metals = B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Sn, Th												
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

**HS23110405**  
Altamira  
Evans & Associates/ Big Fork Ranch





SAMPLER(S) NAME: Tanner Hoskins		DATE: 11/2/23	Total # of Containers: 4	SAMPLER(S) SIGNATURE: <i>Tanner Hoskins</i>		DATE: 11/2/23
		TIME: 1130				TIME: 1830
RELINQUISHED BY: Tanner Hoskins	DATE: 11/3/23	RECEIVED BY: <i>[Signature]</i>	DATE:	LOGGED BY:	DATE:	COOLER TEMP:
	TIME:	CC 11-4-23 0845	TIME:		TIME:	
PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-4 Degrees C 8-9035 9-Other :						
POINT OF ORIGIN: <input type="checkbox"/> Norman <input checked="" type="checkbox"/> Oklahoma City <input type="checkbox"/> Tulsa <input type="checkbox"/> Yukon <input type="checkbox"/> Midland <input type="checkbox"/> Other :						

ALTAMIRA-US, LLC


LC GREEN 210

CHAIN OF CUSTODY RECORD

		PROJECT NUMBER: <b>EMEEOK2023/3000</b>			PROJECT NAME: <b>Evans + Associates/ Big fork Ranch A.m</b>			COC: <u>2</u> of <u>2</u>																																																																																																																																																																																											
		CLIENT CONTACT: <b>Christopher Schaefer</b>			CLIENT EMAIL: <b>Chris. Schaefer@altamira-us.com</b> <i>Lab data</i>			CLIENT PHONE: <b>405-255-7538</b>																																																																																																																																																																																											
LABORATORY / LAB PM: <b>ALS</b>		CLIENT ADDRESS: <b>525 Central park Dr OKC, OK 73105</b> <i>1x120ml Hno3 Suite 500</i>			TAT: <b>STD</b>																																																																																																																																																																																														
LAB ADDRESS: <b>10450 Standcliff Rd Suite 210 Houston TX, 77099</b>		SPECIAL INSTRUCTIONS: <b>Containers for each Sample</b> <i>1x120ml Hno3 1x250ml Neat</i>			<table border="1"> <thead> <tr> <th colspan="10">PARAMETERS</th> </tr> <tr> <th>NO.</th> <th>SAMPLE DESCRIPTION</th> <th>DATE</th> <th>TIME</th> <th>MATRIX</th> <th>PRES.</th> <th>NUMBER OF CONTAINERS</th> <th>FIELD FILTERED (YES / NO)</th> <th colspan="2">HOLD</th> <th>HOLD</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GWMP- 6A (Filtered)</td> <td>11/2/23</td> <td>1730</td> <td>W</td> <td></td> <td>2</td> <td>Yes X</td> <td colspan="2">Hold</td> <td></td> </tr> <tr> <td>2</td> <td><del>GWMP- 8A (Filtered)</del></td> <td><del>11/2/23</del></td> <td><del>1645</del></td> <td><del>W</del></td> <td></td> <td><del>2</del></td> <td><del>Yes X</del></td> <td colspan="2"><del>Hold</del></td> <td></td> </tr> <tr> <td>3</td> <td>GWMP- 9A (Filtered)</td> <td>11/2/23</td> <td>1645</td> <td>W</td> <td></td> <td>2</td> <td>Yes X</td> <td colspan="2">Hold</td> <td></td> </tr> <tr> <td>4</td> <td><del>GWMP- 10A (Filtered)</del></td> <td><del>11/2/23</del></td> <td><del>1620</del></td> <td><del>W</del></td> <td></td> <td><del>2</del></td> <td><del>Yes X</del></td> <td colspan="2"><del>Hold</del></td> <td></td> </tr> <tr> <td>5</td> <td>GWMP- 11A (Filtered)</td> <td>11/2/23</td> <td>1620</td> <td>W</td> <td></td> <td>2</td> <td>Yes X</td> <td colspan="2">Hold</td> <td></td> </tr> <tr> <td>6</td> <td>GWMP- 12A (Filtered)</td> <td>11/2/23</td> <td>1535</td> <td>W</td> <td></td> <td>2</td> <td>Yes X</td> <td colspan="2">Hold</td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>11</td> <td colspan="5">(Most samples Filtered in field and placed in preserved containers)</td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>12</td> <td colspan="5"></td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>13</td> <td colspan="5">(* Not enough water to get GWMP- 8A + 10A Filtered)</td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>14</td> <td colspan="5">(Please hold all until notified)</td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> <tr> <td>15</td> <td colspan="5"></td> <td></td> <td></td> <td colspan="2"></td> <td></td> </tr> </tbody> </table>					PARAMETERS										NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	HOLD		HOLD	1	GWMP- 6A (Filtered)	11/2/23	1730	W		2	Yes X	Hold			2	<del>GWMP- 8A (Filtered)</del>	<del>11/2/23</del>	<del>1645</del>	<del>W</del>		<del>2</del>	<del>Yes X</del>	<del>Hold</del>			3	GWMP- 9A (Filtered)	11/2/23	1645	W		2	Yes X	Hold			4	<del>GWMP- 10A (Filtered)</del>	<del>11/2/23</del>	<del>1620</del>	<del>W</del>		<del>2</del>	<del>Yes X</del>	<del>Hold</del>			5	GWMP- 11A (Filtered)	11/2/23	1620	W		2	Yes X	Hold			6	GWMP- 12A (Filtered)	11/2/23	1535	W		2	Yes X	Hold			7											8											9											10											11	(Most samples Filtered in field and placed in preserved containers)										12											13	(* Not enough water to get GWMP- 8A + 10A Filtered)										14	(Please hold all until notified)										15										
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SHIPMENT METHOD: <b>Fedex</b>		TRACKING: <b>6220 8005 9754</b>			<p style="text-align: center;"><b>HS23110405</b></p> <p style="text-align: center;">Altamira Evans &amp; Associates/ Big Fork Ranch</p> 																																																																																																																																																																																														
SAMPLER(S) NAME: <b>Tanner Hoskins</b>		DATE: <b>11/2/23</b> TIME: <b>1830</b>		Total # of Containers: <b>8</b>						SAMPLER(S) SIGNATURE: <i>Tanner Hoskins</i>		DATE: <b>11/2/23</b> TIME: <b>1830</b>																																																																																																																																																																																							
RELINQUISHED BY: <b>Tanner Hoskins</b>		DATE: <b>11/2/23</b> TIME:		RECEIVED BY: <i>ca 11/4/23</i>		DATE: _____ TIME: _____		LOGGED BY: _____ DATE: _____ TIME: _____		COOLER TEMP: _____																																																																																																																																																																																									
PRESERVATION KEY:		1-HCL	2-HNO3	3-H2SO4	4-NaOH	5-Na2S2O3	6-NaHSO4	7- 4 Degrees C	8-9035	9-Other :																																																																																																																																																																																									
POINT OF ORIGIN:		<input type="checkbox"/> Norman	<input checked="" type="checkbox"/> Oklahoma City	<input type="checkbox"/> Tulsa	<input type="checkbox"/> Yukon	<input type="checkbox"/> Midland	<input type="checkbox"/> Other :																																																																																																																																																																																												

ALTAMIRA-US, LLC

CHAIN OF CUSTODY RECORD


 <b>ALTAMIRA</b> <small>formerly known as Enviro Clean Cardinal</small>		PROJECT NUMBER: <b>EME EOK 2023/3000</b>			PROJECT NAME: <b>Evans &amp; Associates / Big Fork Ranch A.M.</b>			COC: <u>3</u> of <u>3</u>												
		CLIENT CONTACT: <b>Christopher Schaefer</b>			CLIENT EMAIL: <b>Chris.Schaefer@altamira-US.com Labdata@altamira-US.com</b>			CLIENT PHONE: <b>405-255-7538</b>												
LABORATORY / LAB PM: <b>ALS</b>		CLIENT ADDRESS: <b>525 Central park Dr Suite 500 OKC, OK 73105</b>			TAT: <b>STD</b>															
LAB ADDRESS: <b>10450 Stancliff Rd Suite 210 Houston, Tx 77099</b>		SPECIAL INSTRUCTIONS: <b>Containers for each sample 1x 120 mL H<sub>2</sub>O3 1x 250 mL neat</b>			PARAMETERS															
SHIPMENT METHOD: <b>Fedex</b>		TRACKING: <b>6220 8005 9754</b>			NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	PH (Sim 4500 H+B)	Cl, F, SO <sub>4</sub> , (F300)	* Metals total (6020A)	Hg, (7470A)	TDS (SM2540c)									HOLD
NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.															
1	GWMP- 6A	11/2/23	1730	W		2	N	X	X	X	X	X								
2	GWMP- 8A	11/2/23	1050	W		2	N	X	X	X	X	X								
3	GWMP- 9A	11/2/23	1645	W		2	N	X	X	X	X	X								
4	GWMP- 10A	11/2/23	1230	W		2	N	X	X	X	X	X								
5	GWMP- 11A	11/2/23	1620	W		2	N	X	X	X	X	X								
6	GWMP- 12A	11/2/23	1535	W		2	N	X	X	X	X	X								
7	DUP 1	11/2/23	-	W		2	N	X	X	X	X	X								
8	Temp Blank	-	-	-	-	1	N													
9																				
10																				
11																				
12	* Metals = B, Ca, Sb, As, Ba, Cd, Cr, Co, Pb, Li, Mo, Sn, Th																			
13																				
14																				
15																				
SAMPLER(S) NAME: <b>Tanner Hoskins</b>		DATE: <b>11/2/23</b>		Total # of Containers: <b>15</b>			SAMPLER(S) SIGNATURE: <i>Tanner Hoskins</i>			DATE: <b>11/2/23</b>										
RELINQUISHED BY: <b>Tanner Hoskins</b>		DATE: <b>11/3/23</b>		RECEIVED BY: <b>CA 11-4-23 0845</b>			LOGGED BY:			DATE:		COOLER TEMP:								
PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035 9-Other :		TIME:		TIME:			TIME:			TIME:		TIME:								
POINT OF ORIGIN: <input type="checkbox"/> Norman <input checked="" type="checkbox"/> Oklahoma City <input type="checkbox"/> Tulsa <input type="checkbox"/> Yukon <input type="checkbox"/> Midland <input type="checkbox"/> Other :																				




**HS23110405**

Altamira  
Evans & Associates/ Big Fork Ranch

ALTAMIRA-US, LLC

 <b>ALS</b> 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		Seal Broken By: <i>gmy</i>
	Date: <i>11/3/23</i>	Time: <i>14:30</i>	Date: <i>11/04/23</i>
	Name: <i>Tanner Hodges</i>		Company: <i>Altamira</i>

*gmy* NOV 04 2023

 <b>ALS</b> 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		Seal Broken By: <i>gmy</i>
	Date: <i>11/3/23</i>	Time: <i>14:30</i>	Date: <i>11/04/23</i>
	Name: <i>Tanner Hodges</i>		Company: <i>Altamira</i>

*gmy*

PASA KHYCSTOV  
 ALTAMIRA  
 525 CENTRAL PARK DRIVE SUITE 500  
 OKLAHOMA CITY, OK 73105  
 UNITED STATES US

TO **BRENDA CALDWELL**  
**ALS GLOBAL**  
**10450 STANCLIFF RD.**  
**SUITE 210**  
**HOUSTON TX 77099**

(281) 575-2155  
 REF: EVANS & ASSOCAITES = BO 96630 - AK

RMA: ||| ||| |||



**FedEx**  
Express



**FedEx**  
 TRK# 0221 6220 8005 9754

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

**XO SGRA**

77099  
 TX-US IAH



#5312108 11/03 583J4/C5BD/9RE3

December 04, 2023

Chris Schaefer  
Altamira  
525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105

Re: Radiochemistry  
Work Order: 645086

Dear Chris Schaefer:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on November 13, 2023. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](http://www.gel.com).

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

Adrian Melendrez for  
Jacob Crook  
Project Manager

Purchase Order: GELP22-1329  
Enclosures



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis Report for

ALMI001 Altamira

Client SDG: 645086 GEL Work Order: 645086

**The Qualifiers in this report are defined as follows:**

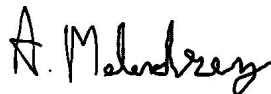
- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Jacob Crook.

Reviewed by



---



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Altamira  
Address : 525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105

Report Date: December 4, 2023

Contact: Chris Schaefer  
Project: Radiochemistry

Client Sample ID: GWMP-8A  
Sample ID: 645086002  
Matrix: Water  
Collect Date: 06-NOV-23  
Receive Date: 13-NOV-23  
Collector: Client

Project: ALMI00122  
Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b> <i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.984	+/-1.09	1.83	+/-1.12	3.00	pCi/L			HH3	11/21/23	0846	2525762	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.83	+/-1.17		+/-1.22		pCi/L			NXL1	12/04/23	0934	2533963	2
<b>Rad Radium-226</b> <i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.848	+/-0.437	0.493	+/-0.479	1.00	pCi/L			LXP1	12/01/23	1017	2526237	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2525762	93.7	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty



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## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Report Date: December 4, 2023

Contact: Chris Schaefer  
 Project: Radiochemistry

Client Sample ID: GWMP-9A  
 Sample ID: 645086003  
 Matrix: Water  
 Collect Date: 24-OCT-23  
 Receive Date: 13-NOV-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.21	+/-0.911	1.17	+/-1.07	3.00	pCi/L			HH3	11/21/23	0846	2525762	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.55	+/-1.07		+/-1.23		pCi/L			NXL1	12/04/23	0934	2533963	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.34	+/-0.555	0.496	+/-0.607	1.00	pCi/L			LXP1	12/01/23	1017	2526237	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2525762	93.5	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Altamira  
Address : 525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105  
Contact: Chris Schaefer  
Project: Radiochemistry

Report Date: December 4, 2023

Client Sample ID: GWMP-10A  
Sample ID: 645086004  
Matrix: Water  
Collect Date: 30-OCT-23  
Receive Date: 13-NOV-23  
Collector: Client

Project: ALMI00122  
Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b> <i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.58	+/-0.925	1.37	+/-1.01	3.00	pCi/L			HH3	11/21/23	0846	2525762	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.37	+/-1.05		+/-1.13		pCi/L			NXL1	12/04/23	0934	2533963	2
<b>Rad Radium-226</b> <i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.792	+/-0.496	0.650	+/-0.516	1.00	pCi/L			LXP1	12/01/23	1017	2526237	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2525762	89.1	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Report Date: December 4, 2023

Contact: Chris Schaefer  
 Project: Radiochemistry

Client Sample ID: GWMP-11A  
 Sample ID: 645086005  
 Matrix: Water  
 Collect Date: 25-OCT-23  
 Receive Date: 13-NOV-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.75	+/-1.13	1.75	+/-1.21	3.00	pCi/L			HH3	11/21/23	0847	2525762	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.51	+/-1.38		+/-1.51		pCi/L			NXL1	12/04/23	0934	2533963	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.76	+/-0.796	0.440	+/-0.892	1.00	pCi/L			LXP1	12/01/23	1017	2526237	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2525762	89.7	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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## Certificate of Analysis

Company : Altamira  
 Address : 525 Central Park Dr  
 Suite 500  
 Oklahoma City, Oklahoma 73105

Report Date: December 4, 2023

Contact: Chris Schaefer  
 Project: Radiochemistry

Client Sample ID: GWMP-12A  
 Sample ID: 645086006  
 Matrix: Water  
 Collect Date: 23-OCT-23  
 Receive Date: 13-NOV-23  
 Collector: Client

Project: ALMI00122  
 Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b>														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.983	+/-1.34	2.29	+/-1.37	3.00	pCi/L			HH3	11/21/23	0847	2525762	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.72	+/-1.39		+/-1.42		pCi/L			NXL1	12/04/23	0934	2533963	2
<b>Rad Radium-226</b>														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.740	+/-0.360	0.314	+/-0.379	1.00	pCi/L			LXP1	12/01/23	1017	2526237	3

**The following Analytical Methods were performed**

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2525762	85.4	(15%-125%)

**Notes:**  
 The MDC is a sample specific MDC.  
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

# GEL LABORATORIES LLC

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## Certificate of Analysis

Company : Altamira  
Address : 525 Central Park Dr  
Suite 500  
Oklahoma City, Oklahoma 73105

Report Date: December 4, 2023

Contact: Chris Schaefer  
Project: Radiochemistry

Client Sample ID: DUP 1  
Sample ID: 645086007  
Matrix: Water  
Collect Date: 23-OCT-23  
Receive Date: 13-NOV-23  
Collector: Client

Project: ALMI00122  
Client ID: ALMI001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Gas Flow Proportional Counting</b> <i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.07	+/-0.761	1.15	+/-0.808	3.00	pCi/L			HH3	11/21/23	0847	2525762	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.52	+/-0.907		+/-0.950		pCi/L			NXL1	12/04/23	0934	2533963	2
<b>Rad Radium-226</b> <i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.454	+/-0.494	0.815	+/-0.500	1.00	pCi/L			LXP1	12/01/23	1017	2526237	3

### The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2525762	89.3	(15%-125%)

**Notes:**  
The MDC is a sample specific MDC.  
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor  
DL: Detection Limit  
Lc/LC: Critical Level  
MDA: Minimum Detectable Activity  
MDC: Minimum Detectable Concentration

Mtd.: Method  
PF: Prep Factor  
RL: Reporting Limit  
TPU: Total Propagated Uncertainty

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: December 4, 2023

Page 1 of 2

**Client :** Altamira  
**525 Central Park Dr**  
**Suite 500**  
**Oklahoma City, Oklahoma**

**Contact:** Chris Schaefer

**Workorder:** 645086

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time	
<b>Rad Gas Flow</b>												
Batch	2525762											
QC1205575602	645086001 DUP											
Radium-228	U	-0.483	U	-0.437	pCi/L	0		N/A	HH3	11/21/23	08:47	
	Uncert:	+/-0.905		+/-1.16								
	TPU:	+/-0.905		+/-1.16								
QC1205575605	LCS											
Radium-228	76.9			70.2	pCi/L		91.3	(75%-125%)	HH3	11/21/23	08:47	
	Uncert:			+/-3.86								
	TPU:			+/-18.3								
QC1205575601	MB											
Radium-228			U	0.842	pCi/L				HH3	11/21/23	08:47	
	Uncert:			+/-0.828								
	TPU:			+/-0.855								
QC1205575603	645086001 MS											
Radium-228	451	U	-0.483	438	pCi/L		97.1	(75%-125%)	HH3	11/21/23	08:47	
	Uncert:		+/-0.905	+/-24.4								
	TPU:		+/-0.905	+/-115								
QC1205575604	645086001 MSD											
Radium-228	463	U	-0.483	371	pCi/L	16.4	80.1	(0%-20%)	HH3	11/21/23	08:47	
	Uncert:		+/-0.905	+/-23.0								
	TPU:		+/-0.905	+/-98.0								
<b>Rad Ra-226</b>												
Batch	2526237											
QC1205576429	645086001 DUP											
Radium-226	U	0.326	U	0.424	pCi/L	0			N/A	LXP1	12/01/23	11:24
	Uncert:	+/-0.303		+/-0.423								
	TPU:	+/-0.309		+/-0.429								
QC1205576432	LCS											
Radium-226	26.8			27.0	pCi/L		101	(75%-125%)	LXP1	12/01/23	11:24	
	Uncert:			+/-2.06								
	TPU:			+/-6.03								
QC1205576428	MB											
Radium-226			U	0.421	pCi/L				LXP1	12/01/23	11:24	
	Uncert:			+/-0.404								
	TPU:			+/-0.410								
QC1205576430	645086001 MS											
Radium-226	125	U	0.326	123	pCi/L		98.7	(75%-125%)	LXP1	12/01/23	11:24	
	Uncert:		+/-0.303	+/-10.7								
	TPU:		+/-0.309	+/-21.4								
QC1205576431	645086001 MSD											
Radium-226	133	U	0.326	117	pCi/L	5.65	87.5	(0%-20%)	LXP1	12/01/23	11:24	
	Uncert:		+/-0.303	+/-9.53								

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 645086

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Ra-226</b>										
Batch	2526237									
		TPU:	+/-0.309				+/-27.9			

**Notes:**

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
  - J Value is estimated
  - X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
  - H Analytical holding time was exceeded
  - < Result is less than value reported
  - > Result is greater than value reported
  - UI Gamma Spectroscopy--Uncertain identification
  - BD Results are either below the MDC or tracer recovery is low
  - h Preparation or preservation holding time was exceeded
  - R Sample results are rejected
  - ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
  - N/A RPD or %Recovery limits do not apply.
  - ND Analyte concentration is not detected above the detection limit
  - M M if above MDC and less than LLD
  - NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
  - FA Failed analysis.
  - UJ Gamma Spectroscopy--Uncertain identification
  - Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
  - K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
  - UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
  - L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
  - N1 See case narrative
  - Y Other specific qualifiers were required to properly define the results. Consult case narrative.
  - \*\* Analyte is a Tracer compound
  - M REMP Result > MDC/CL and < RDL
  - J See case narrative for an explanation
- N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.  
 \*\* Indicates analyte is a surrogate/tracer compound.  
 ^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.  
 For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



CHAIN OF CUSTODY RECORD

645086



PROJECT NUMBER: EM EEOK 2023/3000  
 PROJECT NAME: Evans & Associates / Big Fork Ranch km  
 CLIENT CONTACT: Chris Schaefer  
 CLIENT EMAIL: Chris.Schaefer@altamira-us.com  
 CLIENT PHONE: 405-255-7538  
 COC: 1 of 1  
 TAT: STD

CLIENT ADDRESS: 525 Central park Dr  
 Suite 500  
 OKC, OK 73105  
 SPECIAL INSTRUCTIONS:  
 \* Report Rad 226/228 combined

LABORATORY / LAB PM: GEL  
 ADDRESS: 2040 Savage Rd  
 Charleston, SC 29407

SHIPMENT METHOD: Fedex

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	PARAMETERS	HOLD
1	GWMP-6A	10/24/23	1715	W	2	1	N		
2	GWMP-8A *	11/6/23	1445	W	2	1	N	* Rad 226	
3	GWMP-9A	10/24/23	1630	W	2	1	N	* Rad 228	
4	GWMP-10A	10/20/23	1645	W	2	1	N		
5	GWMP-11A	10/25/23	815	W	2	1	N		
6	GWMP-12A	10/23/23	1450	W	2	1	N		
7	DUP 1	-	-	W	2	1	N		

Each Container is 1 gallon  
 \* Due to limited recovery, GWMP-8A Bottle could not be filled, only 2/3 full.

SAMPLER(S) NAME: Tanner Hoskins  
 RELINQUISHED BY: Tanner Hoskins  
 DATE: 11/7/23  
 TIME: 1500  
 RECEIVED BY: [Signature]  
 DATE: 11/13/23  
 TIME: 1020  
 LOGGED BY: [Signature]  
 DATE: 11/13/23  
 TIME: 1020  
 SAMPLER(S) SIGNATURE: [Signature]  
 DATE: 11/6/23  
 TIME: 1500  
 COOLER TEMP: [Blank]  
 Total # of Containers: 7  
 6-NaHSO4 7-4 Degrees C 8-9035 9-Other:  
 Yukon  Tulsa  Midland  Other:



**SAMPLE RECEIPT & REVIEW FORM**

Client: Amc SDG/AR/COC/Work Order: 645086  
 Received By: Me'Shaila Mckelvey Date Received: 11/13/23  
 Carrier and Tracking Number: 7860 7827 5690 140  
 FedEx Express  FedEx Ground  UPS  Field Services  Courier  Other

Suspected Hazard Information:  Yes  No  
 \*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.  
 A) Shipped as a DOT Hazardous?  Yes  No  
 Hazard Class Shipped: \_\_\_\_\_ UN#: \_\_\_\_\_  
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes \_\_\_ No \_\_\_  
 B) Did the client designate the samples are to be received as radioactive?  Yes  No  
 COC notation or radioactive stickers on containers equal client designation.  
 C) Did the RSO classify the samples as radioactive?  Yes  No  
 Maximum Net Counts Observed\* (Observed Counts - Area Background Counts): 0 cpm mR/hr  
 Classified as: Rad 1 Rad 2 Rad 3  
 D) Did the client designate samples are hazardous?  Yes  No  
 COC notation or hazard labels on containers equal client designation.  
 E) Did the RSO identify possible hazards?  Yes  No  
 If D or E is yes, select Hazards below:  
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry Ice None Other: _____ *all temperatures are recorded in Celsius TEMP: <u>See above 1 below</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>JR6-23</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected: _____
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):  
7860 7827 5705 120

PM (or PMA) review: Initials Am Date 11/14/23 Page 1 of 1

**List of current GEL Certifications as of 04 December 2023**

<b>State</b>	<b>Certification</b>
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-05
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-23-21
Utah NELAP	SC000122023-38
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**Radiochemistry  
Technical Case Narrative  
Altamira  
SDG #: 645086**

**Product:** GFPC Ra228, Liquid

**Analytical Method:** EPA 904.0/SW846 9320 Modified

**Analytical Procedure:** GL-RAD-A-063 REV# 5

**Analytical Batch:** 2525762

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
645086001	GWMP-6A
645086002	GWMP-8A
645086003	GWMP-9A
645086004	GWMP-10A
645086005	GWMP-11A
645086006	GWMP-12A
645086007	DUP 1
1205575601	Method Blank (MB)
1205575602	645086001(GWMP-6A) Sample Duplicate (DUP)
1205575603	645086001(GWMP-6A) Matrix Spike (MS)
1205575604	645086001(GWMP-6A) Matrix Spike Duplicate (MSD)
1205575605	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Homogenous Matrix**

Samples were non-homogenous matrix. all samples cloudy and had sediment. samples 002, 003, 004, 008, and 645090001 are orange

**Miscellaneous Information**

**Additional Comments**

The matrix spike and matrix spike duplicate, 1205575603 (GWMP-6AMS) and 1205575604 (GWMP-6AMSD), aliquots were reduced to conserve sample volume.

**Product:** Lucas Cell, Ra226, Liquid

**Analytical Method:** EPA 903.1 Modified

**Analytical Procedure:** GL-RAD-A-008 REV# 15

**Analytical Batch:** 2526237

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
645086001	GWMP-6A
645086002	GWMP-8A
645086003	GWMP-9A
645086004	GWMP-10A
645086005	GWMP-11A
645086006	GWMP-12A
645086007	DUP 1
1205576428	Method Blank (MB)
1205576429	645086001(GWMP-6A) Sample Duplicate (DUP)
1205576430	645086001(GWMP-6A) Matrix Spike (MS)
1205576431	645086001(GWMP-6A) Matrix Spike Duplicate (MSD)
1205576432	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Homogenous Matrix**

Samples were non-homogenous matrix. Samples are yellow.

**Miscellaneous Information**

**Additional Comments**

The matrix spike and matrix spike duplicate, 1205576430 (GWMP-6AMS) and 1205576431 (GWMP-6AMSD), aliquots were reduced to conserve sample volume.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# **ATTACHMENT C**

**SANITAS™ OUTPUT**

**(EVALUATION OF FIRST 2023 DATA)**

# Sen's / Mann-Kendall (First 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 230417 EVANS AND ASSOCIATES AM    Printed 1/23/2024, 11:43 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Antimony (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0001785</b>	<b>-37</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Antimony (mg/L)</b>	<b>MW-8A</b>	<b>-0.0003061</b>	<b>-33</b>	<b>-30</b>	<b>Yes</b>	<b>12</b>	<b>83.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Antimony (mg/L)	MW-9A	0	-19	-23	No	10	100	n/a	n/a	0.05	NP
Antimony (mg/L)	MW-10A	-0.0001757	-7	-20	No	9	33.33	n/a	n/a	0.05	NP
<b>Antimony (mg/L)</b>	<b>MW-11A</b>	<b>-0.001199</b>	<b>-53</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>92.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Antimony (mg/L)</b>	<b>MW-12A</b>	<b>-0.0000365</b>	<b>-73</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.002239</b>	<b>-108</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>42.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>MW-8A</b>	<b>-0.001733</b>	<b>-93</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>50</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>MW-9A</b>	<b>-0.001609</b>	<b>-57</b>	<b>-45</b>	<b>Yes</b>	<b>16</b>	<b>43.75</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Arsenic (mg/L)	MW-10A	-0.0002121	-25	-37	No	14	42.86	n/a	n/a	0.05	NP
<b>Arsenic (mg/L)</b>	<b>MW-11A</b>	<b>-0.001252</b>	<b>-59</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>28.57</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Arsenic (mg/L)	MW-12A	0	-6	-53	No	18	38.89	n/a	n/a	0.05	NP
<b>Barium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.07879</b>	<b>-91</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Barium (mg/L)	MW-8A	0.003989	9	53	No	18	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-9A	0.003679	20	45	No	16	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-10A	-0.01069	-15	-37	No	14	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-11A	-0.01821	-9	-37	No	14	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-12A	-0.003122	-24	-53	No	18	0	n/a	n/a	0.05	NP
<b>Beryllium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0001895</b>	<b>-41</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>84.62</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Beryllium (mg/L)</b>	<b>MW-8A</b>	<b>-0.0001976</b>	<b>-42</b>	<b>-30</b>	<b>Yes</b>	<b>12</b>	<b>75</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Beryllium (mg/L)	MW-9A	-0.0001738	-20	-23	No	10	60	n/a	n/a	0.05	NP
Beryllium (mg/L)	MW-10A	0	-9	-20	No	9	77.78	n/a	n/a	0.05	NP
<b>Beryllium (mg/L)</b>	<b>MW-11A</b>	<b>-0.0002305</b>	<b>-47</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>71.43</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Beryllium (mg/L)</b>	<b>MW-12A</b>	<b>-0.0001688</b>	<b>-54</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>55.56</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0001837</b>	<b>-42</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-8A</b>	<b>-0.0002183</b>	<b>-39</b>	<b>-30</b>	<b>Yes</b>	<b>12</b>	<b>91.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Cadmium (mg/L)	MW-9A	0	-21	-23	No	10	100	n/a	n/a	0.05	NP
<b>Cadmium (mg/L)</b>	<b>MW-10A</b>	<b>-0.0001433</b>	<b>-25</b>	<b>-20</b>	<b>Yes</b>	<b>9</b>	<b>66.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-11A</b>	<b>-0.0002086</b>	<b>-48</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-12A</b>	<b>-0.0001779</b>	<b>-74</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>88.89</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Chromium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.003704</b>	<b>-100</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>36.84</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Chromium (mg/L)	MW-8A	-0.0002437	-37	-53	No	18	38.89	n/a	n/a	0.05	NP
<b>Chromium (mg/L)</b>	<b>MW-9A</b>	<b>-0.001866</b>	<b>-65</b>	<b>-45</b>	<b>Yes</b>	<b>16</b>	<b>50</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Chromium (mg/L)	MW-10A	-0.001408	-32	-37	No	14	42.86	n/a	n/a	0.05	NP
<b>Chromium (mg/L)</b>	<b>MW-11A</b>	<b>-0.002503</b>	<b>-60</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>50</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Chromium (mg/L)</b>	<b>MW-12A</b>	<b>-0.001977</b>	<b>-72</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>66.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.00415</b>	<b>-116</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>42.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MW-8A</b>	<b>-0.00194</b>	<b>-82</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>61.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MW-9A</b>	<b>-0.001965</b>	<b>-67</b>	<b>-45</b>	<b>Yes</b>	<b>16</b>	<b>62.5</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Cobalt (mg/L)	MW-10A	-0.0006315	-17	-37	No	14	28.57	n/a	n/a	0.05	NP

# Sen's / Mann-Kendall (First 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 230417 EVANS AND ASSOCIATES AM    Printed 1/23/2024, 11:43 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Cobalt (mg/L)</b>	<b>MW-11A</b>	<b>-0.002821</b>	<b>-56</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>50</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Cobalt (mg/L)	MW-12A	0	-38	-53	No	18	55.56	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-6A (bg)	0.00522	32	90	No	26	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-8A	-0.01244	-68	-90	No	26	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-9A	0.007101	28	81	No	24	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-10A	0	-2	-71	No	22	18.18	n/a	n/a	0.05	NP
<b>Fluoride (mg/L)</b>	<b>MW-11A</b>	<b>-0.03391</b>	<b>-38</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Fluoride (mg/L)	MW-12A	-0.03754	-17	-53	No	18	0	n/a	n/a	0.05	NP
<b>Lead (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.003103</b>	<b>-98</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>42.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Lead (mg/L)	MW-8A	-0.001464	-72	-53	Yes	18	61.11	n/a	n/a	0.05	NP
Lead (mg/L)	MW-9A	-0.001835	-68	-45	Yes	16	50	n/a	n/a	0.05	NP
Lead (mg/L)	MW-10A	-0.001547	-38	-37	Yes	14	28.57	n/a	n/a	0.05	NP
Lead (mg/L)	MW-11A	-0.001408	-61	-37	Yes	14	50	n/a	n/a	0.05	NP
Lead (mg/L)	MW-12A	0	0	53	No	18	27.78	n/a	n/a	0.05	NP
<b>Lithium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.01171</b>	<b>-122</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>42.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Lithium (mg/L)	MW-8A	-0.008624	-96	-53	Yes	18	55.56	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-9A	-0.006438	-75	-45	Yes	16	50	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-10A	-0.01037	-62	-37	Yes	14	50	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-11A	-0.008282	-54	-37	Yes	14	42.86	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-12A	-0.008468	-94	-53	Yes	18	55.56	n/a	n/a	0.05	NP
<b>Mercury (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.00003599</b>	<b>-121</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Mercury (mg/L)	MW-8A	-0.00003367	-76	-53	Yes	18	100	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-9A	-0.00003498	-77	-45	Yes	16	100	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-10A	-0.00003218	-63	-37	Yes	14	92.86	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-11A	-0.000005214	-48	-37	Yes	14	100	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-12A	0	-10	-53	No	18	77.78	n/a	n/a	0.05	NP
<b>Molybdenum (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.002173</b>	<b>-119</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Molybdenum (mg/L)	MW-8A	-0.001955	-104	-53	Yes	18	66.67	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-9A	-0.001949	-88	-45	Yes	16	6.25	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-10A	0	10	37	No	14	50	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-11A	-0.001147	-48	-37	Yes	14	100	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-12A	-0.01648	-72	-53	Yes	18	0	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-6A (bg)	-0.2146	-42	-49	No	17	29.41	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-8A	0.02062	6	45	No	16	37.5	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-9A	0.04467	13	41	No	15	33.33	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-10A	-0.1271	-22	-30	No	12	25	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-11A	-0.6335	-25	-37	No	14	14.29	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-12A	-0.1607	-32	-49	No	17	35.29	n/a	n/a	0.05	NP
Selenium (mg/L)	MW-6A (bg)	-0.002329	-56	-58	No	19	47.37	n/a	n/a	0.05	NP
<b>Selenium (mg/L)</b>	<b>MW-8A</b>	<b>-0.002108</b>	<b>-71</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>44.44</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>

# Sen's / Mann-Kendall (First 2023 Sampling)

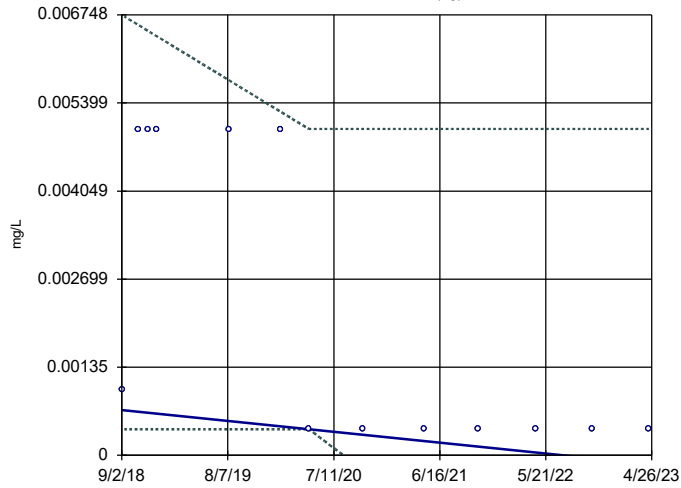
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM Printed 1/23/2024, 11:43 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Selenium (mg/L)</b>	<b>MW-9A</b>	<b>-0.003727</b>	<b>-79</b>	<b>-45</b>	<b>Yes</b>	<b>16</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Selenium (mg/L)</b>	<b>MW-10A</b>	<b>-0.003685</b>	<b>-63</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>92.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Selenium (mg/L)</b>	<b>MW-11A</b>	<b>-0.001204</b>	<b>-51</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>92.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Selenium (mg/L)</b>	<b>MW-12A</b>	<b>-0.002786</b>	<b>-72</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>38.89</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Thallium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0002325</b>	<b>-47</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Thallium (mg/L)</b>	<b>MW-8A</b>	<b>-0.00004753</b>	<b>-33</b>	<b>-30</b>	<b>Yes</b>	<b>12</b>	<b>83.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Thallium (mg/L)	MW-9A	-0.0001853	-23	-23	No	10	100	n/a	n/a	0.05	NP
Thallium (mg/L)	MW-10A	-0.0001226	-18	-20	No	9	88.89	n/a	n/a	0.05	NP
<b>Thallium (mg/L)</b>	<b>MW-11A</b>	<b>-0.0002086</b>	<b>-48</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Thallium (mg/L)</b>	<b>MW-12A</b>	<b>-0.0001779</b>	<b>-77</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>



### Sen's Slope and 95% Confidence Band

MW-6A (bg)

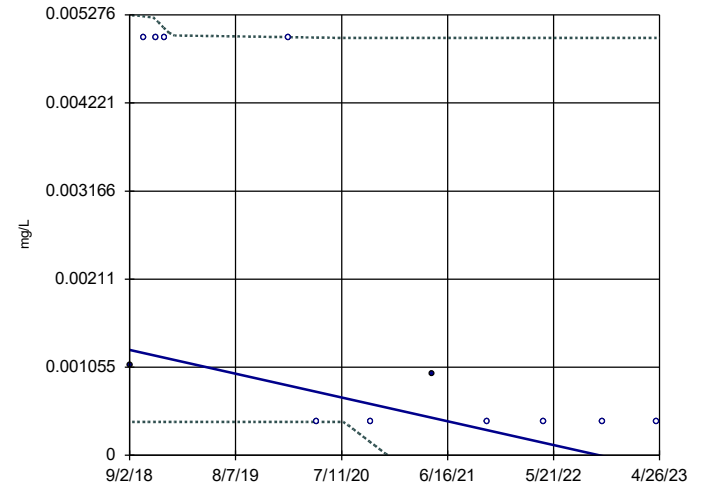


Constituent: Antimony Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A

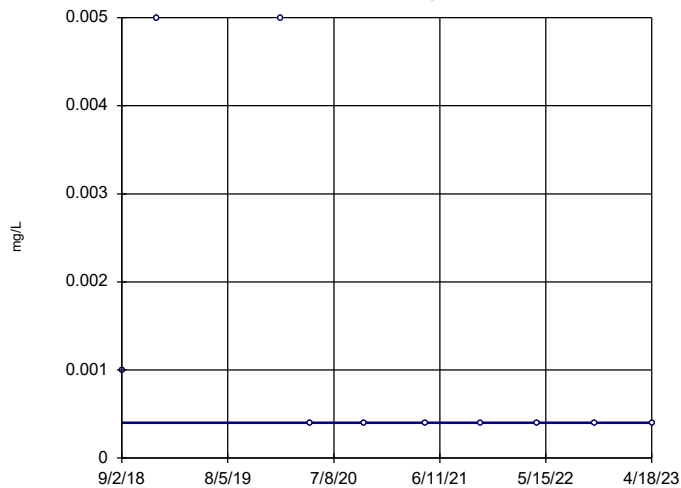


Constituent: Antimony Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-9A

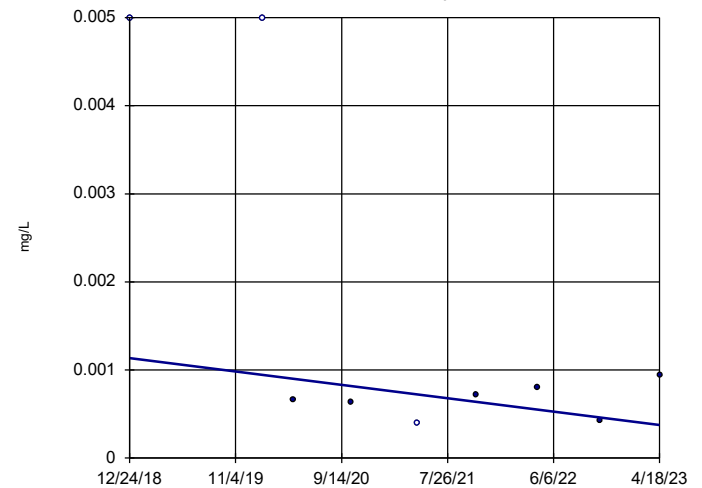


Constituent: Antimony Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



Constituent: Antimony Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	0.0104 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0004	0.006748
10/24/2018	<0.005	0.0004	0.006597
11/27/2018	<0.005	0.0004	0.006497
12/24/2018	<0.005	0.0004	0.006419
8/13/2019	<0.005	0.0004	0.005741
1/22/2020	<0.005	0.0004	0.005269
4/23/2020	<0.0004	0.0004	0.005
10/14/2020	<0.0004	-0.0002288	0.005
4/27/2021	<0.0004	-0.0009334	0.005
10/18/2021	<0.0004	-0.001562	0.005
4/19/2022	<0.0004	-0.002223	0.005
10/19/2022	<0.0004	-0.002885	0.005
4/18/2023	<0.0004	-0.003539	0.005

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	0.00108	0.0004	0.005276
10/19/2018	<0.005	0.0004	0.005257
11/27/2018	<0.005	0.0004	0.005214
12/24/2018	<0.005	0.0004	0.005107
1/22/2020	<0.005	0.0004	0.00501
4/23/2020	<0.0004	0.0004	0.005005
10/14/2020	<0.0004	0.0001522	0.005
4/27/2021	0.000975 (J)	-0.0004031	0.005
10/20/2021	<0.0004	-0.0009199	0.005
4/21/2022	<0.0004	-0.001447	0.005
10/24/2022	<0.0004	-0.002029	0.005
4/18/2023	<0.0004	-0.00263	0.005

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

## MW-9A

1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
7/29/2018	<0.01 (o)
9/2/2018	<0.001
12/24/2018	<0.005
1/22/2020	<0.005
4/23/2020	<0.0004
10/14/2020	<0.0004
4/27/2021	<0.0004
10/19/2021	<0.0004
4/19/2022	<0.0004
10/19/2022	<0.0004
4/18/2023	<0.0004

# Sen's Slope Estimator

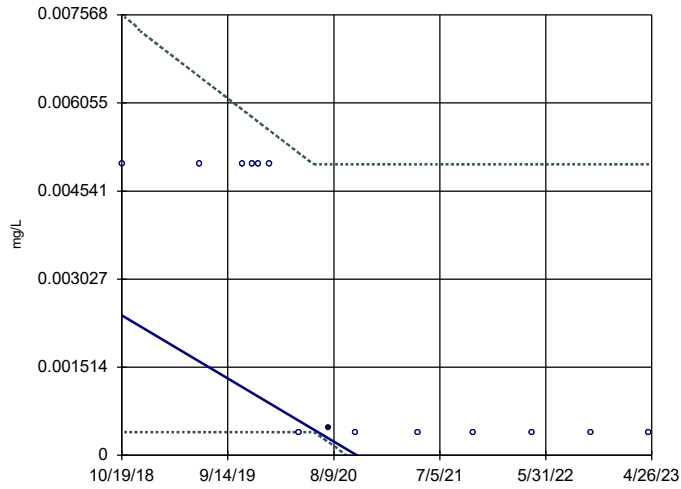
Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
12/24/2018	<0.005
1/22/2020	<0.005
4/23/2020	0.000655 (J)
10/14/2020	0.000632 (J)
4/27/2021	<0.0004
10/20/2021	0.000723 (J)
4/20/2022	0.000803 (J)
10/24/2022	0.000431 (J)
4/18/2023	0.000943 (J)

Sen's Slope and 95% Confidence Band

MW-11A



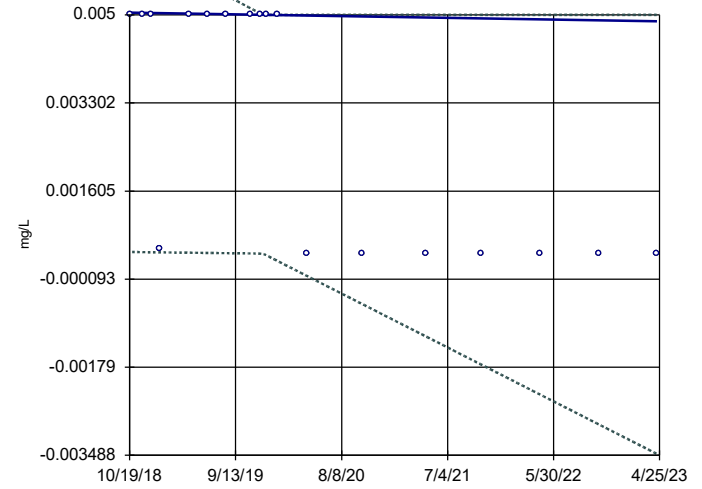
n = 14  
Slope = -0.001199  
units per year.  
Mann-Kendall  
statistic = -53  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Sen's Slope and 95% Confidence Band

MW-12A



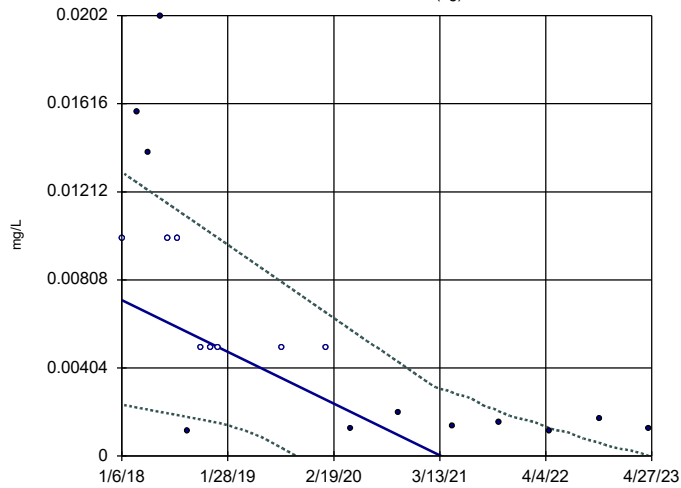
n = 18  
Slope = -0.0000365  
units per year.  
Mann-Kendall  
statistic = -73  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Sen's Slope and 95% Confidence Band

MW-6A (bg)



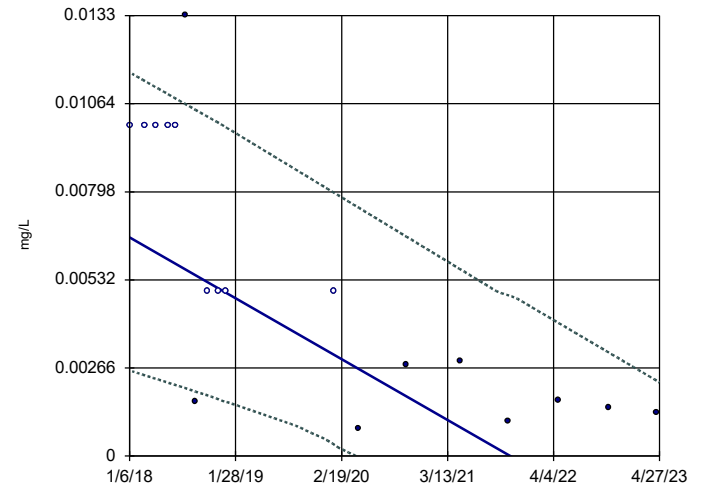
n = 19  
Slope = -0.002239  
units per year.  
Mann-Kendall  
statistic = -108  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Sen's Slope and 95% Confidence Band

MW-8A



n = 18  
Slope = -0.001733  
units per year.  
Mann-Kendall  
statistic = -93  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0004	0.007568
6/18/2019	<0.005	0.0004	0.006505
10/29/2019	<0.005	0.0004	0.005941
11/29/2019	<0.005	0.0004	0.00581
12/18/2019	<0.005	0.0004	0.005729
1/22/2020	<0.005	0.0004	0.005581
4/23/2020	<0.0004	0.0004	0.005191
7/22/2020	0.000484 (J)	0.0002325	0.005
10/14/2020	<0.0004	-0.000121	0.005
4/27/2021	<0.0004	-0.000972	0.005
10/18/2021	<0.0004	-0.001731	0.005
4/19/2022	<0.0004	-0.002551	0.005
10/18/2022	<0.0004	-0.003345	0.005
4/18/2023	<0.0004	-0.004179	0.005

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	<0.005	0.0004304	0.006369
11/27/2018	<0.005	0.0004275	0.006241
12/24/2018	<0.005	0.0004256	0.006152
1/22/2019	<0.0005	0.0004234	0.006056
4/22/2019	<0.005	0.0004168	0.005759
6/18/2019	<0.005	0.0004127	0.005571
8/13/2019	<0.005	0.0004086	0.005386
10/29/2019	<0.005	0.0004029	0.005132
11/29/2019	<0.005	0.0004007	0.00503
12/18/2019	<0.005	0.0003685	0.005
1/22/2020	<0.005	0.0002582	0.005
4/23/2020	<0.0004	-0.00003164	0.005
10/13/2020	<0.0004	-0.0005767	0.005
4/27/2021	<0.0004	-0.001194	0.005
10/18/2021	<0.0004	-0.001742	0.005
4/18/2022	<0.0004	-0.002316	0.005
10/18/2022	<0.0004	-0.002892	0.005
4/17/2023	<0.0004	-0.003463	0.005



# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.002358	0.01302
3/3/2018	0.0158	0.002226	0.01254
4/14/2018	0.0139	0.002127	0.01218
5/26/2018	0.0202	0.002029	0.01182
6/23/2018	<0.01	0.001963	0.01158
7/29/2018	<0.01	0.001878	0.01127
9/2/2018	0.00118	0.001796	0.01097
10/24/2018	<0.005	0.001673	0.01052
11/27/2018	<0.005	0.001593	0.01023
12/24/2018	<0.005	0.00153	0.01
8/13/2019	<0.005	0.000375	0.007987
1/22/2020	<0.005	-0.0007457	0.006581
4/23/2020	0.00125 (J)	-0.001394	0.005783
10/14/2020	0.00198 (J)	-0.00285	0.004303
4/27/2021	0.00136 (J)	-0.004689	0.002918
10/18/2021	0.00153 (J)	-0.006635	0.002043
4/19/2022	0.00114 (J)	-0.008705	0.001274
10/19/2022	0.00171 (J)	-0.01077	0.0006074
4/18/2023	0.00124 (J)	-0.01282	-0.000006639

# Sen's Slope Estimator

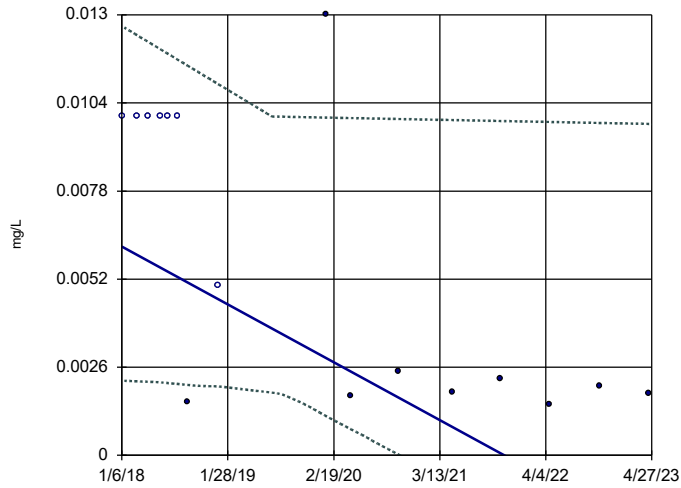
Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.002585	0.01159
3/3/2018	<0.01	0.002438	0.01132
4/14/2018	<0.01	0.002328	0.01113
5/26/2018	<0.01	0.002218	0.01093
6/23/2018	<0.01	0.002145	0.0108
7/29/2018	0.0133	0.002051	0.01063
9/2/2018	0.00164	0.001952	0.01046
10/19/2018	<0.005	0.001831	0.01024
11/27/2018	<0.005	0.001719	0.01006
12/24/2018	<0.005	0.001638	0.00993
1/22/2020	<0.005	0.0003561	0.007957
4/23/2020	0.000833 (J)	-0.00004251	0.007496
10/14/2020	0.00276	-0.0008158	0.006625
4/27/2021	0.00288	-0.001786	0.005649
10/20/2021	0.00104 (J)	-0.002901	0.004857
4/21/2022	0.0017 (J)	-0.004163	0.004028
10/24/2022	0.00148 (J)	-0.005551	0.003124
4/18/2023	0.00131 (J)	-0.006841	0.002268

### Sen's Slope and 95% Confidence Band

MW-9A



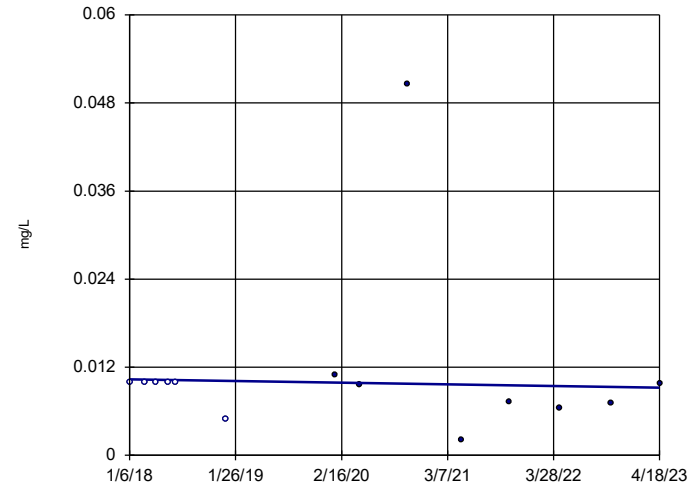
n = 16  
Slope = -0.001609 units per year.  
Mann-Kendall statistic = -57  
critical = -45  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Arsenic Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



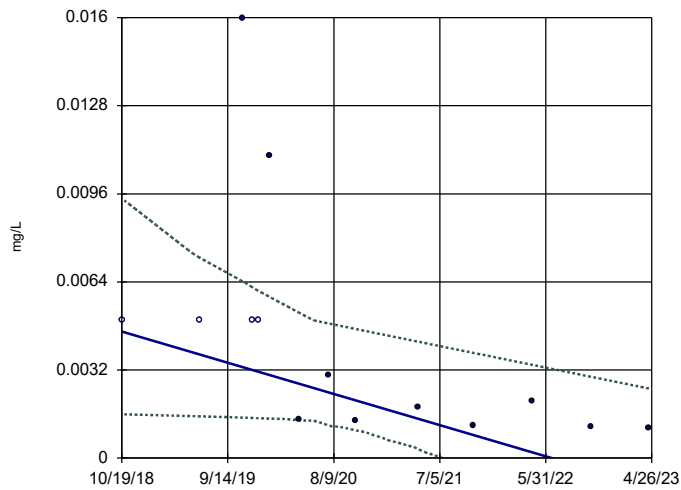
n = 14  
Slope = -0.0002121 units per year.  
Mann-Kendall statistic = -25  
critical = -37  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Arsenic Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-11A



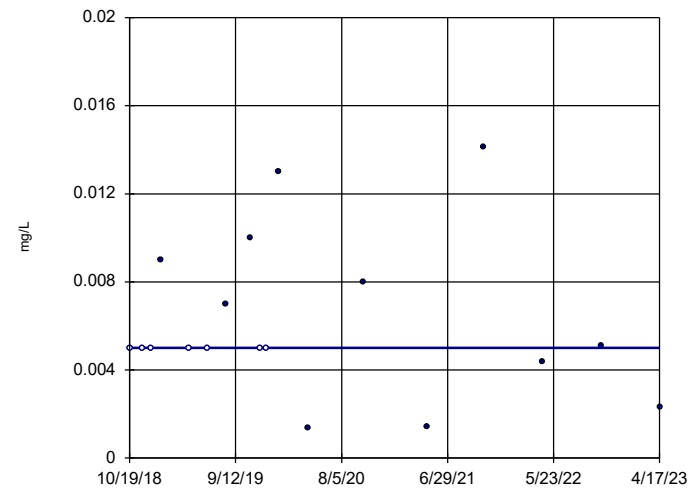
n = 14  
Slope = -0.001252 units per year.  
Mann-Kendall statistic = -59  
critical = -37  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Arsenic Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-12A



n = 18  
Slope = 0 units per year.  
Mann-Kendall statistic = -6  
critical = -53  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Arsenic Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.002202	0.01267
3/3/2018	<0.01	0.002184	0.0124
4/14/2018	<0.01	0.002171	0.01219
5/26/2018	<0.01	0.002154	0.01199
6/23/2018	<0.01	0.002134	0.01185
7/29/2018	<0.01	0.002107	0.01168
9/2/2018	0.00158	0.00208	0.01151
12/24/2018	<0.005	0.002031	0.01096
1/22/2020	0.013	0.001162	0.009969
4/23/2020	0.00174 (J)	0.0007658	0.009954
10/14/2020	0.00248	0.00001844	0.009927
4/27/2021	0.00185 (J)	-0.0008705	0.009896
10/19/2021	0.00225	-0.001676	0.009868
4/19/2022	0.00151 (J)	-0.002531	0.009839
10/19/2022	0.00203	-0.003394	0.00981
4/18/2023	0.00184 (J)	-0.00425	0.009782

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	<0.01
5/26/2018	<0.01
6/23/2018	<0.01
12/24/2018	<0.005
1/22/2020	0.011
4/23/2020	0.00957
10/14/2020	0.0505
4/27/2021	0.00211
10/20/2021	0.00734
4/20/2022	0.0064
10/24/2022	0.00708
4/18/2023	0.00976

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.001593	0.009435
6/18/2019	<0.005	0.001517	0.007282
10/29/2019	0.016	0.00147	0.006427
11/29/2019	<0.005	0.001457	0.006202
12/18/2019	<0.005	0.001449	0.006076
1/22/2020	0.011	0.001435	0.005857
4/23/2020	0.00142 (J)	0.001378	0.005281
7/22/2020	0.00303	0.001191	0.004893
10/14/2020	0.00136 (J)	0.001014	0.004694
4/27/2021	0.00184 (J)	0.0003419	0.004232
10/18/2021	0.00117 (J)	-0.000506	0.00382
4/19/2022	0.00206	-0.002167	0.003387
10/18/2022	0.00114 (J)	-0.00382	0.002955
4/18/2023	0.00111 (J)	-0.005472	0.002524

# Sen's Slope Estimator

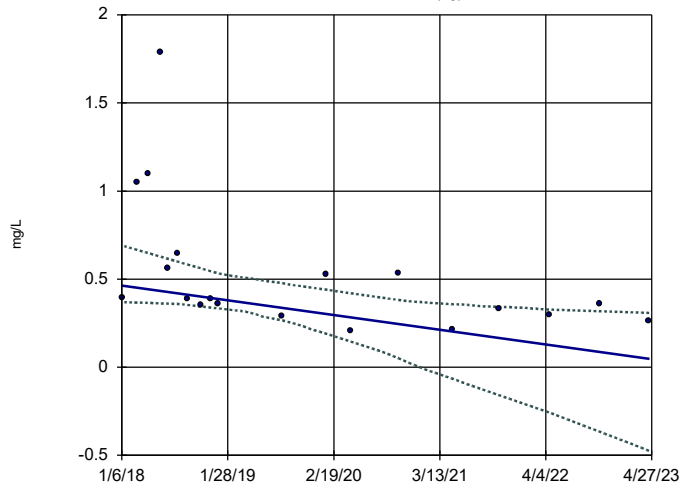
Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A
10/19/2018	<0.005
11/27/2018	<0.005
12/24/2018	<0.005
1/22/2019	0.009
4/22/2019	<0.005
6/18/2019	<0.005
8/13/2019	0.007
10/29/2019	0.01
11/29/2019	<0.005
12/18/2019	<0.005
1/22/2020	0.013
4/23/2020	0.00135 (J)
10/13/2020	0.00798
4/27/2021	0.00143 (J)
10/18/2021	0.0141
4/18/2022	0.00439
10/18/2022	0.00512
4/17/2023	0.00232

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



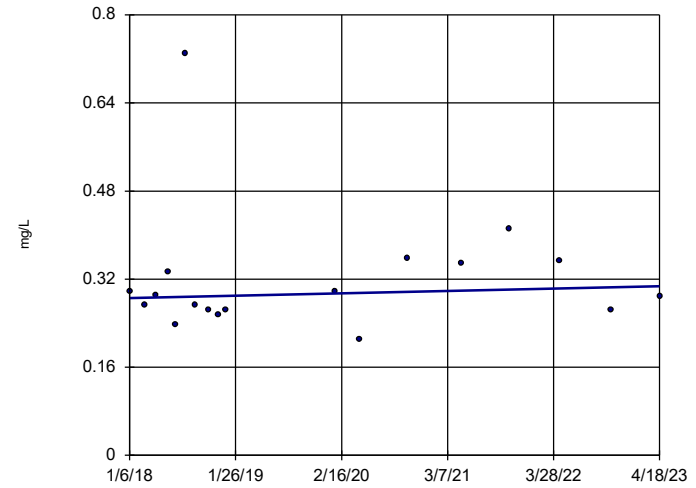
n = 19  
 Slope = -0.07879  
 units per year.  
 Mann-Kendall  
 statistic = -91  
 critical = -58  
 Decreasing trend  
 significant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Barium Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-8A



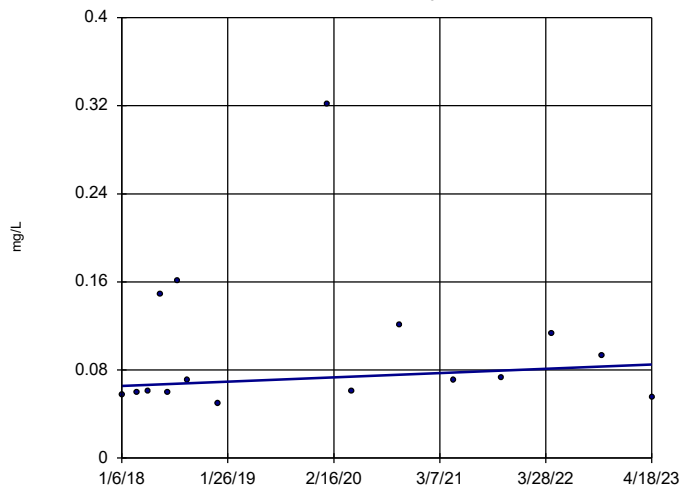
n = 18  
 Slope = 0.003989  
 units per year.  
 Mann-Kendall  
 statistic = 9  
 critical = 53  
 Trend not sig-  
 nificant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Barium Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-9A



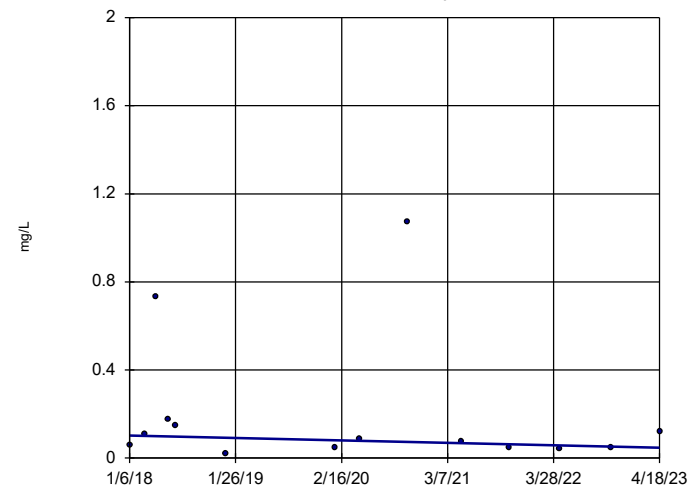
n = 16  
 Slope = 0.003679  
 units per year.  
 Mann-Kendall  
 statistic = 20  
 critical = 45  
 Trend not sig-  
 nificant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Barium Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



n = 14  
 Slope = -0.01069  
 units per year.  
 Mann-Kendall  
 statistic = -15  
 critical = -37  
 Trend not sig-  
 nificant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Barium Analysis Run 1/23/2024 11:33 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM



# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	0.394	0.3694	0.6914
3/3/2018	1.05	0.3672	0.6662
4/14/2018	1.1	0.3654	0.6473
5/26/2018	1.79	0.3624	0.6284
6/23/2018	0.562	0.3611	0.6158
7/29/2018	0.643	0.3595	0.5997
9/2/2018	0.391	0.3537	0.5838
10/24/2018	0.353	0.3447	0.5604
11/27/2018	0.388	0.3387	0.5451
12/24/2018	0.36	0.334	0.533
8/13/2019	0.292	0.2668	0.4778
1/22/2020	0.526	0.1909	0.4404
4/23/2020	0.205	0.145	0.4197
10/14/2020	0.533	0.05085	0.3817
4/27/2021	0.212	-0.06457	0.3577
10/18/2021	0.334	-0.1599	0.343
4/19/2022	0.296	-0.2581	0.3273
10/19/2022	0.358	-0.3664	0.3179
4/18/2023	0.266	-0.4754	0.3081

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A
1/6/2018	0.298
3/3/2018	0.272
4/14/2018	0.29
5/26/2018	0.334
6/23/2018	0.237
7/29/2018	0.73
9/2/2018	0.274
10/19/2018	0.265
11/27/2018	0.255
12/24/2018	0.265
1/22/2020	0.298
4/23/2020	0.211
10/14/2020	0.357
4/27/2021	0.348
10/20/2021	0.412
4/21/2022	0.354
10/24/2022	0.263
4/18/2023	0.289

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A
1/6/2018	0.0574
3/3/2018	0.0591
4/14/2018	0.0602
5/26/2018	0.149
6/23/2018	0.0597
7/29/2018	0.161
9/2/2018	0.0712
12/24/2018	0.05
1/22/2020	0.321
4/23/2020	0.061
10/14/2020	0.121
4/27/2021	0.0711
10/19/2021	0.0728
4/19/2022	0.113
10/19/2022	0.0925
4/18/2023	0.0547

# Sen's Slope Estimator

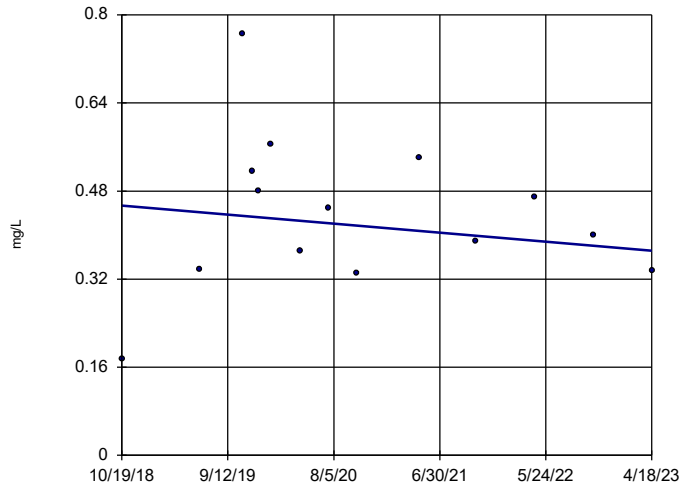
Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	0.0588
3/3/2018	0.109
4/14/2018	0.732
5/26/2018	0.174
6/23/2018	0.148
12/24/2018	0.022
1/22/2020	0.045
4/23/2020	0.0861
10/14/2020	1.07
4/27/2021	0.0735
10/20/2021	0.0459
4/20/2022	0.0439
10/24/2022	0.0498
4/18/2023	0.117

### Sen's Slope Estimator

MW-11A

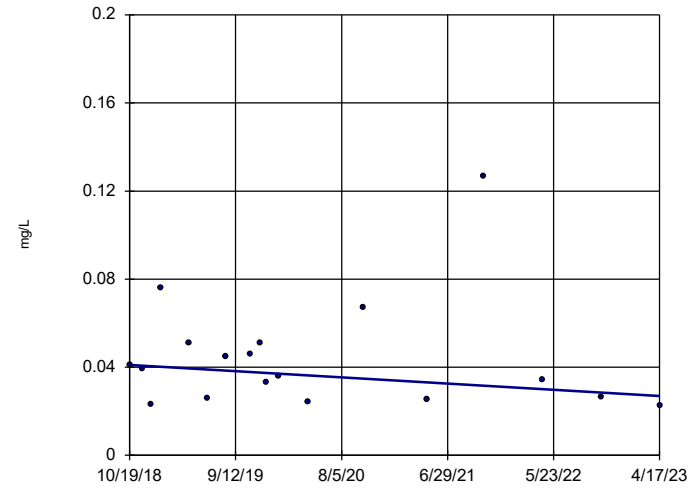


n = 14  
 Slope = -0.01821 units per year.  
 Mann-Kendall statistic = -9  
 critical = -37  
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Barium Analysis Run 1/23/2024 11:34 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-12A

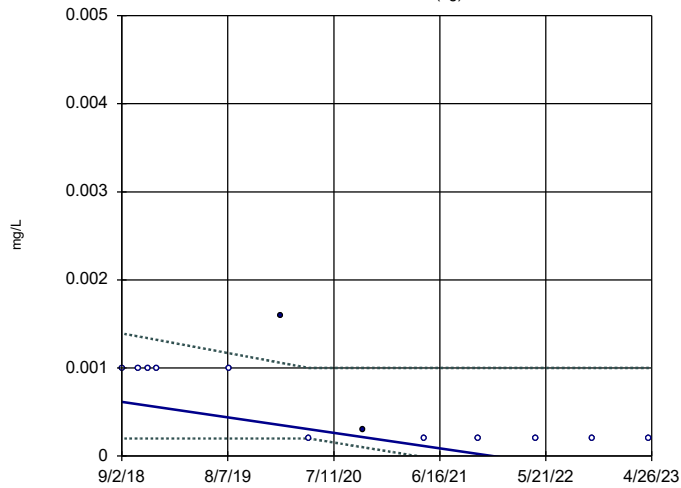


n = 18  
 Slope = -0.003122 units per year.  
 Mann-Kendall statistic = -24  
 critical = -53  
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Barium Analysis Run 1/23/2024 11:34 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-6A (bg)

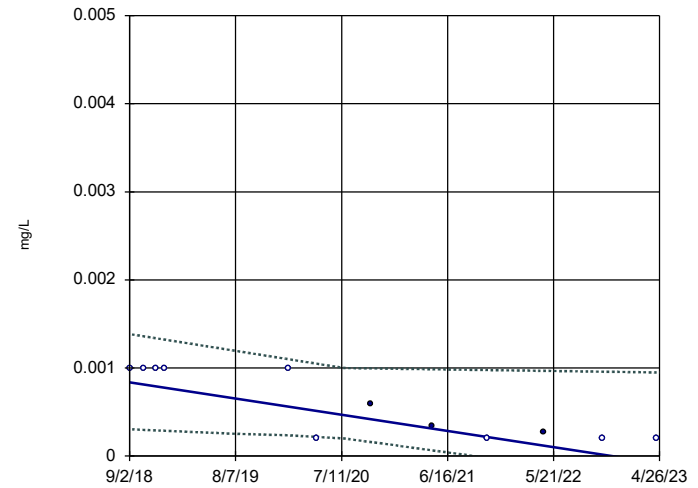


n = 13  
 Slope = -0.0001895 units per year.  
 Mann-Kendall statistic = -41  
 critical = -34  
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Beryllium Analysis Run 1/23/2024 11:34 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A



n = 12  
 Slope = -0.0001976 units per year.  
 Mann-Kendall statistic = -42  
 critical = -30  
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Beryllium Analysis Run 1/23/2024 11:34 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

MW-11A

10/19/2018	0.176
6/18/2019	0.338
10/29/2019	0.765
11/29/2019	0.515
12/18/2019	0.481
1/22/2020	0.564
4/23/2020	0.371
7/22/2020	0.448
10/14/2020	0.332
4/27/2021	0.541
10/18/2021	0.389
4/19/2022	0.468
10/18/2022	0.4
4/18/2023	0.335

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

MW-12A

10/19/2018	0.041
11/27/2018	0.039
12/24/2018	0.023
1/22/2019	0.076
4/22/2019	0.051
6/18/2019	0.026
8/13/2019	0.045
10/29/2019	0.046
11/29/2019	0.051
12/18/2019	0.033
1/22/2020	0.036
4/23/2020	0.0241
10/13/2020	0.067
4/27/2021	0.0256
10/18/2021	0.127
4/18/2022	0.034
10/18/2022	0.0264
4/17/2023	0.0226

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0002	0.001393
10/24/2018	<0.001	0.0002	0.001359
11/27/2018	<0.001	0.0002	0.001337
12/24/2018	<0.001	0.0002	0.001319
8/13/2019	<0.001	0.0002	0.001167
1/22/2020	0.0016	0.0002	0.00106
4/23/2020	<0.0002	0.0002	0.001
10/14/2020	0.000305 (J)	0.00009974	0.001
4/27/2021	<0.0002	-0.00001262	0.001
10/18/2021	<0.0002	-0.0001129	0.001
4/19/2022	<0.0002	-0.0002278	0.001
10/19/2022	<0.0002	-0.0003488	0.001
4/18/2023	<0.0002	-0.0004583	0.001



# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0003045	0.001385
10/19/2018	<0.001	0.0002974	0.001359
11/27/2018	<0.001	0.0002914	0.001337
12/24/2018	<0.001	0.0002873	0.001322
1/22/2020	<0.001	0.0002361	0.001101
4/23/2020	<0.0002	0.0002175	0.001049
10/14/2020	0.000585 (J)	0.0001594	0.0009956
4/27/2021	0.000347 (J)	0.00006547	0.0009858
10/20/2021	<0.0002	-0.00001849	0.0009769
4/21/2022	0.000273 (J)	-0.0001123	0.0009677
10/24/2022	<0.0002	-0.0002276	0.0009583
4/18/2023	<0.0002	-0.0003296	0.0009494



# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A
1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
7/29/2018	<0.01 (o)
9/2/2018	<0.001
12/24/2018	<0.001
1/22/2020	0.0016
4/23/2020	<0.0002
10/14/2020	0.000391 (J)
4/27/2021	<0.0002
10/19/2021	<0.0002
4/19/2022	0.000369 (J)
10/19/2022	0.000205 (J)
4/18/2023	<0.0002

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

## MW-10A

1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	0.00368
4/27/2021	<0.0002
10/20/2021	<0.0002
4/20/2022	<0.0002
10/24/2022	<0.0002
4/18/2023	0.000252 (J)

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001448
6/18/2019	<0.001	0.0002	0.001267
10/29/2019	<0.001	0.0002	0.001167
11/29/2019	<0.001	0.0002	0.001141
12/18/2019	<0.001	0.0002	0.001127
1/22/2020	0.0011	0.0002	0.001101
4/23/2020	<0.0002	0.0002	0.001033
7/22/2020	0.00039 (J)	0.0001811	0.001
10/14/2020	<0.0002	0.0001459	0.001
4/27/2021	0.000502 (J)	0.00004214	0.001
10/18/2021	<0.0002	-0.00006769	0.001
4/19/2022	0.000322 (J)	-0.0001732	0.001
10/18/2022	<0.0002	-0.0002845	0.001
4/18/2023	<0.0002	-0.0004204	0.001

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	<0.001	0.0006178	0.001264
11/27/2018	<0.001	0.0005985	0.001239
12/24/2018	<0.001	0.0005851	0.001222
1/22/2019	<0.001	0.0005708	0.001204
4/22/2019	<0.001	0.0005263	0.001155
6/18/2019	<0.001	0.0004981	0.001117
8/13/2019	0.002	0.0004704	0.001079
10/29/2019	0.002	0.0004323	0.001027
11/29/2019	<0.001	0.000417	0.001006
12/18/2019	0.002	0.0004073	0.001
1/22/2020	0.0014	0.0003893	0.001
4/23/2020	<0.0002	0.0003418	0.001
10/13/2020	0.000258 (J)	0.0002539	0.001
4/27/2021	<0.0002	0.0001536	0.001
10/18/2021	0.00061 (J)	0.00004858	0.001
4/18/2022	0.000482 (J)	-0.00005664	0.001
10/18/2022	0.000343 (J)	-0.0001647	0.001
4/17/2023	<0.0002	-0.0002918	0.001



# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0002	0.001393
10/24/2018	<0.001	0.0002	0.001359
11/27/2018	<0.001	0.0002	0.001337
12/24/2018	<0.001	0.0002	0.001319
8/13/2019	<0.001	0.0002	0.001167
1/22/2020	<0.001	0.0002	0.00106
4/23/2020	<0.0002	0.0002	0.001
10/14/2020	<0.0002	0.00008765	0.001
4/27/2021	<0.0002	-0.00003826	0.001
10/18/2021	<0.0002	-0.0001506	0.001
4/19/2022	<0.0002	-0.0002688	0.001
10/19/2022	<0.0002	-0.0003869	0.001
4/18/2023	<0.0002	-0.0005038	0.001



# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	0.00289	0.0002	0.001799
10/19/2018	<0.001	0.0002	0.001734
11/27/2018	<0.001	0.0002	0.001689
12/24/2018	<0.001	0.0002	0.001658
1/22/2020	<0.001	0.0002	0.001203
4/23/2020	<0.0002	0.0002	0.001099
10/14/2020	<0.0002	0.0001205	0.0009558
4/27/2021	<0.0002	-0.0000578	0.0008569
10/20/2021	<0.0002	-0.0002332	0.0007675
4/21/2022	<0.0002	-0.0004062	0.0006746
10/24/2022	<0.0002	-0.0006005	0.0005802
4/18/2023	<0.0002	-0.0007758	0.0004909

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

## MW-9A

1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
7/29/2018	<0.01 (o)
9/2/2018	<0.001
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	<0.0002
4/27/2021	<0.0002
10/19/2021	<0.0002
4/19/2022	<0.0002
10/19/2022	<0.0002
4/18/2023	<0.0002

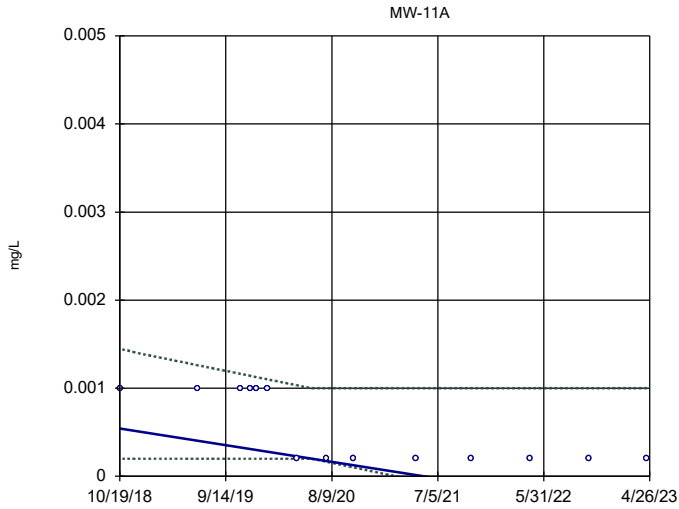
# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
12/24/2018	<0.001	0.0002	0.001464
1/22/2020	<0.001	0.0002	0.001211
4/23/2020	0.00023 (J)	0.0002	0.001156
10/14/2020	0.0009 (J)	0.0002	0.001051
4/27/2021	0.000272 (J)	0.0002	0.0009
10/20/2021	<0.0002	0.0001019	0.0008536
4/20/2022	<0.0002	-0.00000518	0.0007804
10/24/2022	<0.0002	-0.0001237	0.0006951
4/18/2023	<0.0002	-0.0002455	0.0006289

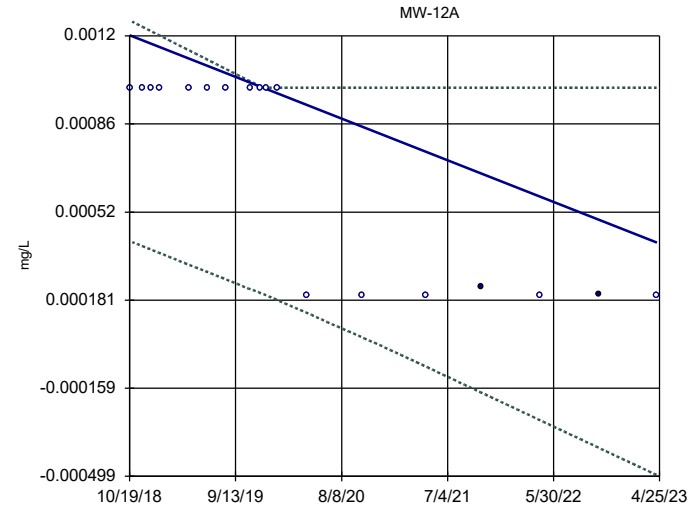
### Sen's Slope and 95% Confidence Band



n = 14  
Slope = -0.0002086  
units per year.  
Mann-Kendall  
statistic = -48  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cadmium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

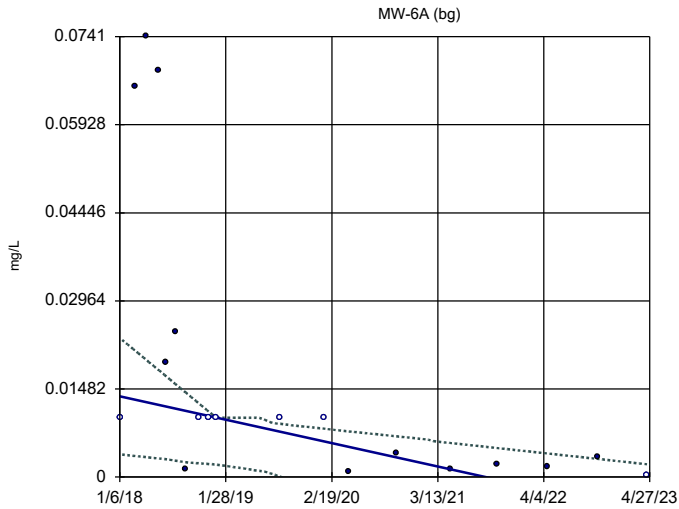
### Sen's Slope and 95% Confidence Band



n = 18  
Slope = -0.0001779  
units per year.  
Mann-Kendall  
statistic = -74  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cadmium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

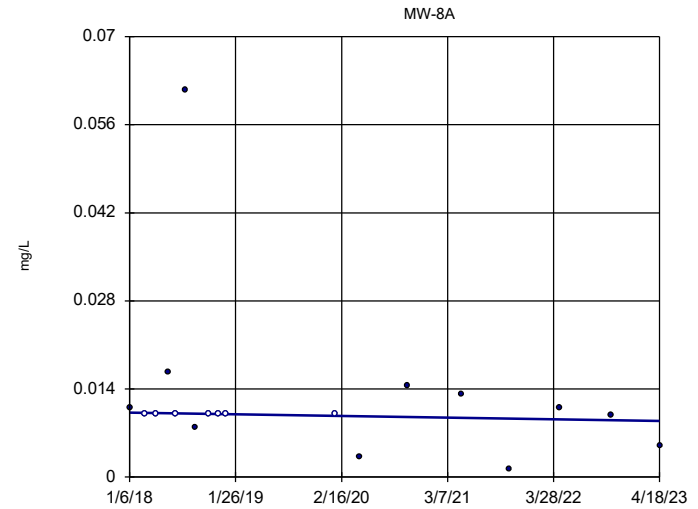
### Sen's Slope and 95% Confidence Band



n = 19  
Slope = -0.003704  
units per year.  
Mann-Kendall  
statistic = -100  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator



n = 18  
Slope = -0.0002437  
units per year.  
Mann-Kendall  
statistic = -37  
critical = -53  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001447
6/18/2019	<0.001	0.0002	0.001262
10/29/2019	<0.001	0.0002	0.001164
11/29/2019	<0.001	0.0002	0.001141
12/18/2019	<0.001	0.0002	0.001127
1/22/2020	<0.001	0.0002	0.001101
4/23/2020	<0.0002	0.0002	0.001033
7/22/2020	<0.0002	0.0001658	0.001
10/14/2020	<0.0002	0.0001021	0.001
4/27/2021	<0.0002	-0.00004592	0.001
10/18/2021	<0.0002	-0.000178	0.001
4/19/2022	<0.0002	-0.0003169	0.001
10/18/2022	<0.0002	-0.000455	0.001
4/18/2023	<0.0002	-0.0006001	0.001

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	<0.001	0.0004085	0.00126
11/27/2018	<0.001	0.0003893	0.001236
12/24/2018	<0.001	0.000376	0.001219
1/22/2019	<0.001	0.0003617	0.0012
4/22/2019	<0.001	0.0003171	0.001144
6/18/2019	<0.001	0.0002891	0.001108
8/13/2019	<0.001	0.0002615	0.001073
10/29/2019	<0.001	0.0002229	0.001025
11/29/2019	<0.001	0.0002089	0.001006
12/18/2019	<0.001	0.0001995	0.001
1/22/2020	<0.001	0.0001805	0.001
4/23/2020	<0.0002	0.000131	0.001
10/13/2020	<0.0002	0.0000362	0.001
4/27/2021	<0.0002	-0.0000752	0.001
10/18/2021	0.000234 (J)	-0.0001765	0.001
4/18/2022	<0.0002	-0.0002825	0.001
10/18/2022	0.000205 (J)	-0.0003891	0.001
4/17/2023	<0.0002	-0.0004944	0.001

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.003825	0.02341
3/3/2018	0.0657	0.003552	0.02127
4/14/2018	0.0741	0.003348	0.01967
5/26/2018	0.0685	0.003143	0.01807
6/23/2018	0.0193	0.003001	0.01701
7/29/2018	0.0244	0.00276	0.01564
9/2/2018	0.00131	0.002513	0.0143
10/24/2018	<0.01	0.002314	0.01232
11/27/2018	<0.01	0.0022	0.01103
12/24/2018	<0.01	0.00211	0.01
8/13/2019	<0.01	0.0001089	0.008964
1/22/2020	<0.01	-0.004743	0.008157
4/23/2020	0.000977 (J)	-0.008186	0.007683
10/14/2020	0.00411	-0.01501	0.006854
4/27/2021	0.00133 (J)	-0.02248	0.005743
10/18/2021	0.00211 (J)	-0.02909	0.004876
4/19/2022	0.0017 (J)	-0.03605	0.003965
10/19/2022	0.00335 (J)	-0.043	0.003054
4/18/2023	<0.0004	-0.04987	0.002153

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:42 AM

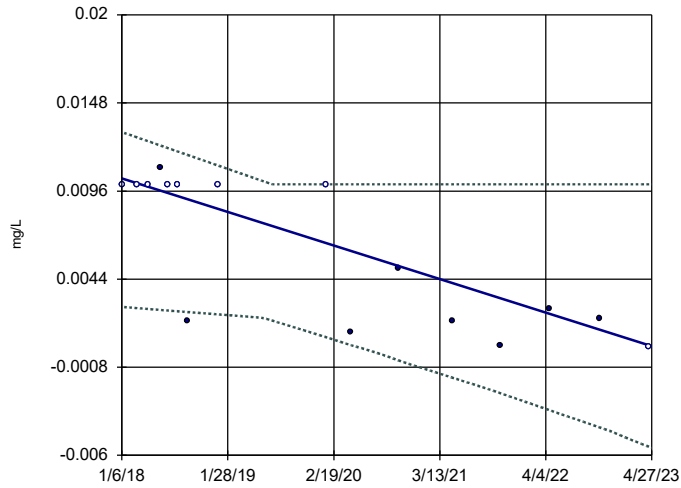
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A
1/6/2018	0.0111
3/3/2018	<0.01
4/14/2018	<0.01
5/26/2018	0.0167
6/23/2018	<0.01
7/29/2018	0.0615
9/2/2018	0.00783
10/19/2018	<0.01
11/27/2018	<0.01
12/24/2018	<0.01
1/22/2020	<0.01
4/23/2020	0.00323 (J)
10/14/2020	0.0146
4/27/2021	0.0131
10/20/2021	0.00118 (J)
4/21/2022	0.0111
10/24/2022	0.00993
4/18/2023	0.00501



### Sen's Slope and 95% Confidence Band

MW-9A

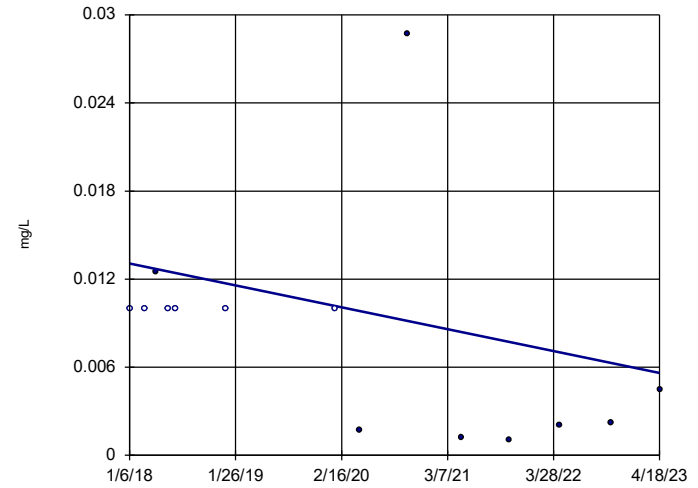


n = 16  
Slope = -0.001866  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -45  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A

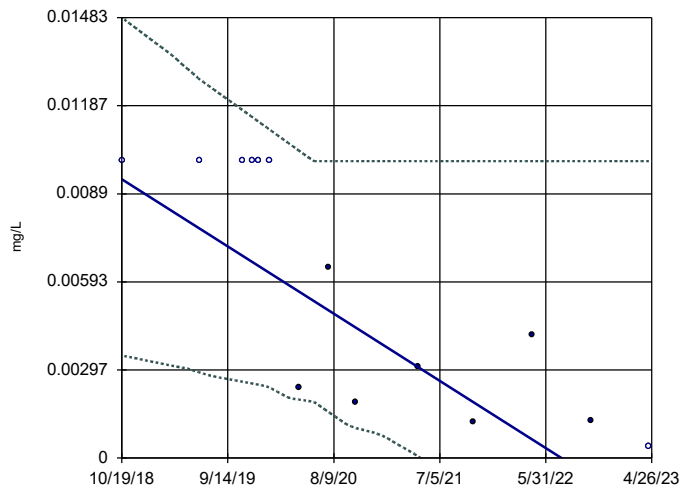


n = 14  
Slope = -0.001408  
units per year.  
Mann-Kendall  
statistic = -32  
critical = -37  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-11A

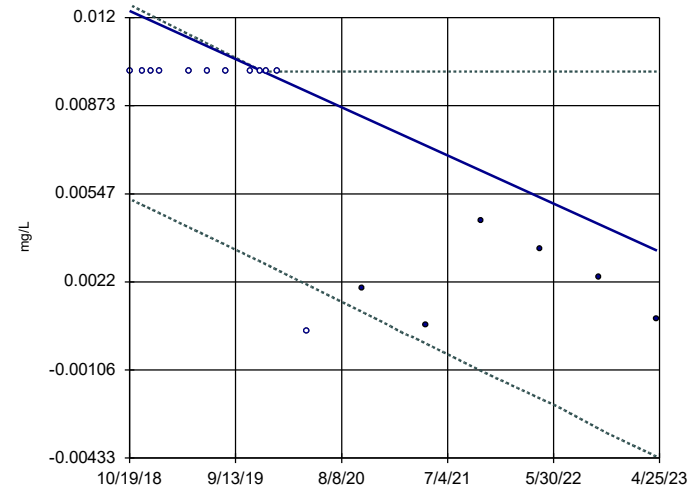


n = 14  
Slope = -0.002503  
units per year.  
Mann-Kendall  
statistic = -60  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-12A



n = 18  
Slope = -0.001977  
units per year.  
Mann-Kendall  
statistic = -72  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.002765	0.01308
3/3/2018	<0.01	0.002692	0.01277
4/14/2018	<0.01	0.002637	0.01253
5/26/2018	0.011	0.002582	0.0123
6/23/2018	<0.01	0.002547	0.01214
7/29/2018	<0.01	0.002503	0.01194
9/2/2018	0.00195	0.00246	0.01174
12/24/2018	<0.01	0.002322	0.01111
1/22/2020	<0.01	0.0009779	0.01
4/23/2020	0.00126 (J)	0.0004966	0.01
10/14/2020	0.00507	-0.0004025	0.01
4/27/2021	0.00196 (J)	-0.00141	0.01
10/19/2021	0.000462 (J)	-0.002324	0.01
4/19/2022	0.00267 (J)	-0.003342	0.01
10/19/2022	0.00208 (J)	-0.004356	0.01
4/18/2023	<0.0004	-0.005507	0.01

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	0.0125
5/26/2018	<0.01
6/23/2018	<0.01
12/24/2018	<0.01
1/22/2020	<0.01
4/23/2020	0.00169 (J)
10/14/2020	0.0287
4/27/2021	0.00124 (J)
10/20/2021	0.00104 (J)
4/20/2022	0.00201 (J)
10/24/2022	0.00223 (J)
4/18/2023	0.00443

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.01	0.003456	0.01483
6/18/2019	<0.01	0.002885	0.01276
10/29/2019	<0.01	0.002573	0.01172
11/29/2019	<0.01	0.002511	0.01148
12/18/2019	<0.01	0.002473	0.01134
1/22/2020	<0.01	0.002376	0.01106
4/23/2020	0.00236 (J)	0.00197	0.01035
7/22/2020	0.00644	0.001564	0.01
10/14/2020	0.0019 (J)	0.001017	0.01
4/27/2021	0.00306 (J)	0.00006783	0.01
10/18/2021	0.00121 (J)	-0.001266	0.01
4/19/2022	0.00416	-0.002441	0.01
10/18/2022	0.00125 (J)	-0.004047	0.01
4/18/2023	<0.0004	-0.005696	0.01

# Sen's Slope Estimator

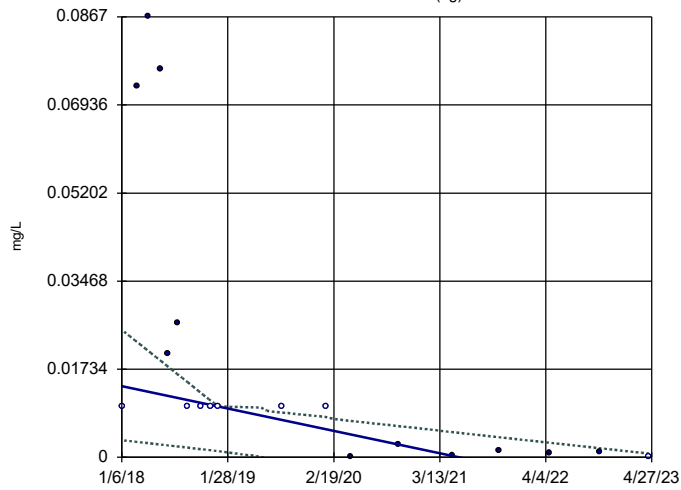
Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	<0.01	0.005279	0.01248
11/27/2018	<0.01	0.005056	0.01225
12/24/2018	<0.01	0.004902	0.01209
1/22/2019	<0.01	0.004737	0.01191
4/22/2019	<0.01	0.004223	0.01137
6/18/2019	<0.01	0.003898	0.01103
8/13/2019	<0.01	0.003578	0.0107
10/29/2019	<0.01	0.003138	0.01024
11/29/2019	<0.01	0.002961	0.01005
12/18/2019	<0.01	0.00285	0.01
1/22/2020	<0.01	0.002641	0.01
4/23/2020	<0.0004	0.002101	0.01
10/13/2020	0.00198 (J)	0.001079	0.01
4/27/2021	0.00059 (J)	-0.00007812	0.01
10/18/2021	0.00447	-0.001106	0.01
4/18/2022	0.00344 (J)	-0.002119	0.01
10/18/2022	0.00238 (J)	-0.003241	0.01
4/17/2023	0.000811 (J)	-0.004283	0.01

### Sen's Slope and 95% Confidence Band

MW-6A (bg)

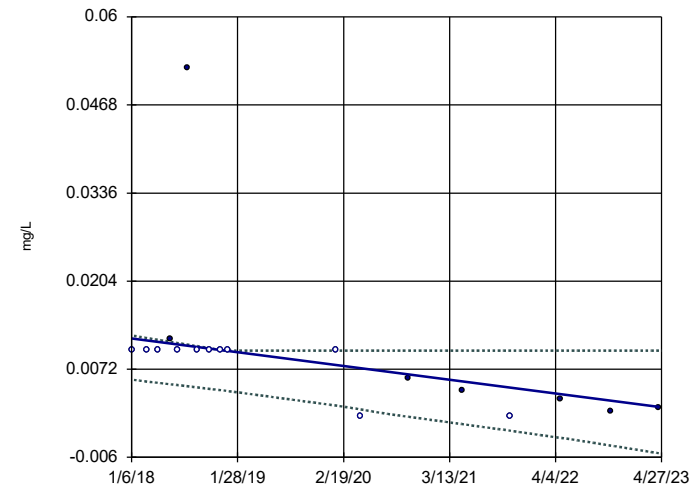


n = 19  
Slope = -0.00415  
units per year.  
Mann-Kendall  
statistic = -116  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A

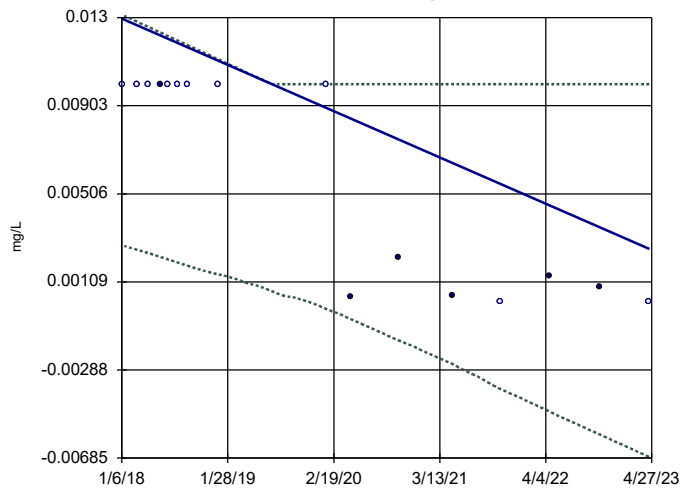


n = 18  
Slope = -0.00194  
units per year.  
Mann-Kendall  
statistic = -82  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-9A

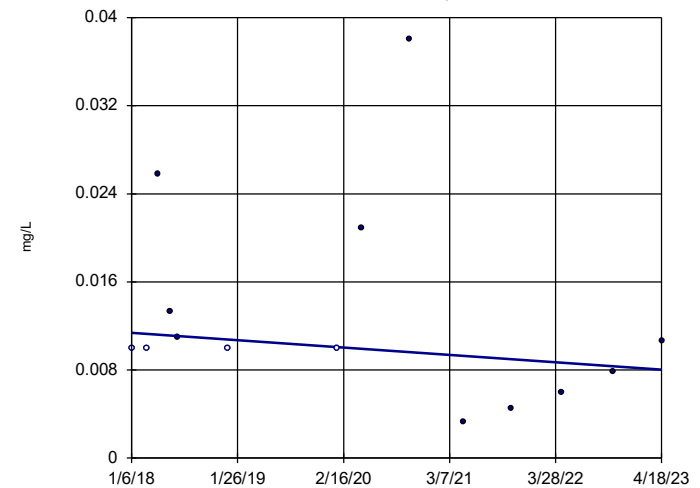


n = 16  
Slope = -0.001965  
units per year.  
Mann-Kendall  
statistic = -67  
critical = -45  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



n = 14  
Slope = -0.0006315  
units per year.  
Mann-Kendall  
statistic = -17  
critical = -37  
Trend not signi-  
ficant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.003375	0.0251
3/3/2018	0.073	0.003033	0.02269
4/14/2018	0.0867	0.002777	0.02089
5/26/2018	0.0764	0.002522	0.01909
6/23/2018	0.0205	0.002351	0.01789
7/29/2018	0.0264	0.002132	0.01635
9/2/2018	<0.01	0.001918	0.01485
10/24/2018	<0.01	0.001602	0.01262
11/27/2018	<0.01	0.001394	0.01116
12/24/2018	<0.01	0.00123	0.01
8/13/2019	<0.01	-0.0007042	0.008821
1/22/2020	<0.01	-0.006739	0.007932
4/23/2020	0.000235 (J)	-0.01068	0.00716
10/14/2020	0.0025 (J)	-0.01813	0.006143
4/27/2021	0.000278 (J)	-0.02644	0.004968
10/18/2021	0.00123 (J)	-0.03385	0.003944
4/19/2022	0.000795 (J)	-0.04165	0.002867
10/19/2022	0.00116 (J)	-0.04945	0.00179
4/18/2023	<0.0002	-0.05717	0.0007244

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.005658	0.01225
3/3/2018	<0.01	0.005354	0.01188
4/14/2018	<0.01	0.005154	0.0116
5/26/2018	0.0117	0.004953	0.01132
6/23/2018	<0.01	0.00482	0.01113
7/29/2018	0.0524	0.004649	0.01089
9/2/2018	<0.01	0.004482	0.01066
10/19/2018	<0.01	0.004258	0.01035
11/27/2018	<0.01	0.004072	0.01009
12/24/2018	<0.01	0.003933	0.01
1/22/2020	<0.01	0.001761	0.01
4/23/2020	<0.0002	0.001168	0.01
10/14/2020	0.00589	0.00007718	0.01
4/27/2021	0.00401 (J)	-0.001017	0.01
10/20/2021	<0.0002	-0.002005	0.01
4/21/2022	0.00277 (J)	-0.003073	0.01
10/24/2022	0.000986 (J)	-0.004246	0.01
4/18/2023	0.00142 (J)	-0.005391	0.01



# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.002743	0.01313
3/3/2018	<0.01	0.002541	0.01281
4/14/2018	<0.01	0.002389	0.01258
5/26/2018	0.01	0.002222	0.01234
6/23/2018	<0.01	0.00211	0.01218
7/29/2018	<0.01	0.001965	0.01197
9/2/2018	<0.01	0.001825	0.01177
12/24/2018	<0.01	0.001435	0.01112
1/22/2020	<0.01	-0.0001279	0.01
4/23/2020	0.000419 (J)	-0.0005893	0.01
10/14/2020	0.00217 (J)	-0.001549	0.01
4/27/2021	0.000489 (J)	-0.002597	0.01
10/19/2021	<0.0002	-0.003728	0.01
4/19/2022	0.00139 (J)	-0.00476	0.01
10/19/2022	0.000853 (J)	-0.005787	0.01
4/18/2023	<0.0002	-0.006797	0.01

# Sen's Slope Estimator

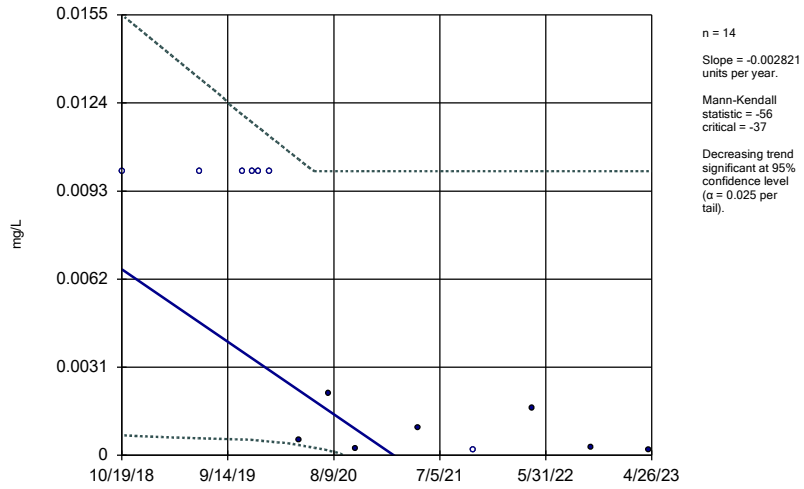
Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	0.0258
5/26/2018	0.0133
6/23/2018	0.011
12/24/2018	<0.01
1/22/2020	<0.01
4/23/2020	0.0209
10/14/2020	0.0381
4/27/2021	0.00325 (J)
10/20/2021	0.00449 (J)
4/20/2022	0.00595
10/24/2022	0.00788
4/18/2023	0.0106

### Sen's Slope and 95% Confidence Band

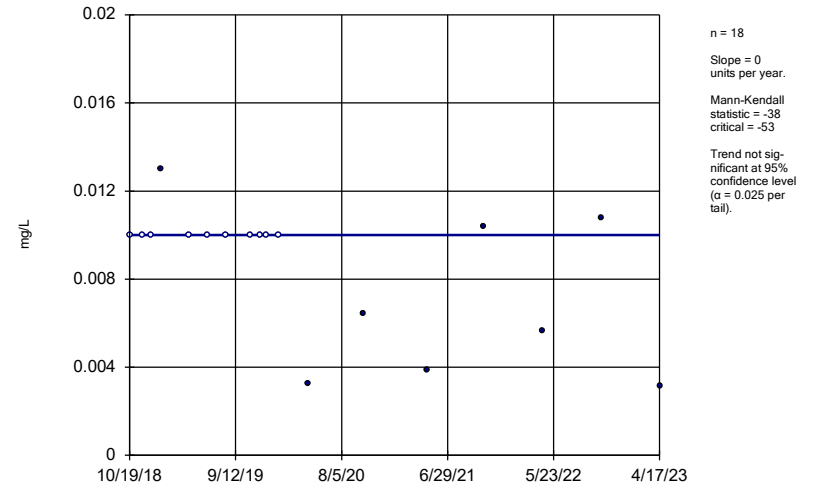
MW-11A



Constituent: Cobalt Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

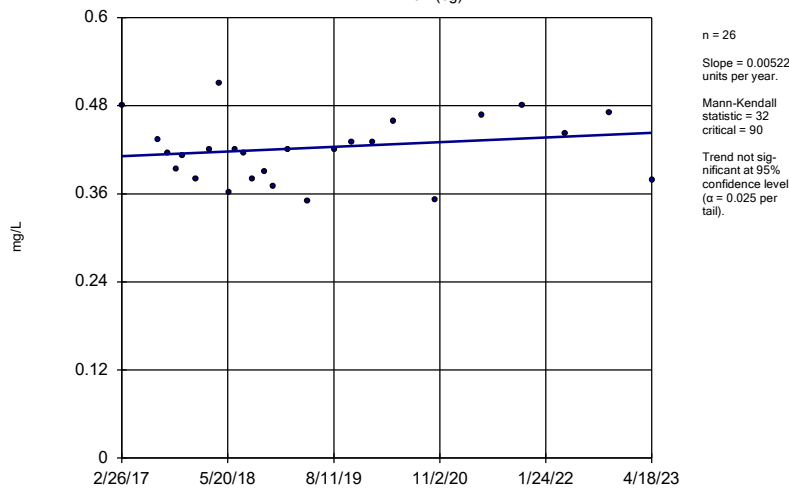
MW-12A



Constituent: Cobalt Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

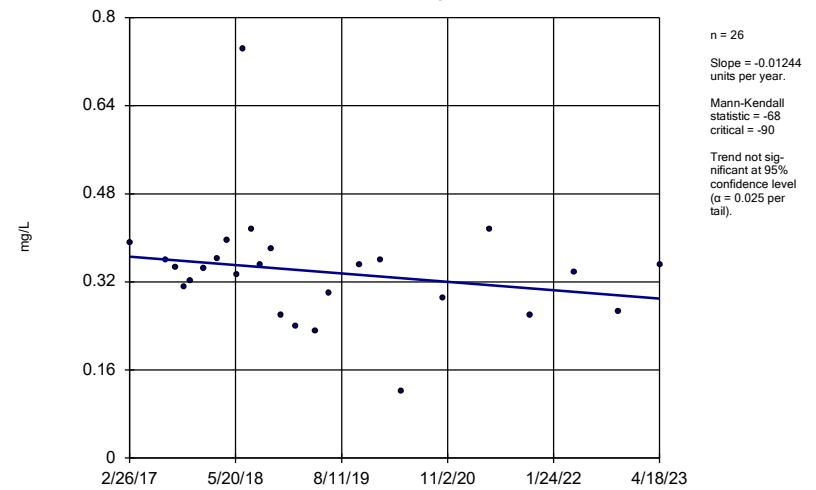
MW-6A (bg)



Constituent: Fluoride Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-8A



Constituent: Fluoride Analysis Run 1/23/2024 11:34 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.01	0.0007037	0.0155
6/18/2019	<0.01	0.0006005	0.01327
10/29/2019	<0.01	0.000557	0.01199
11/29/2019	<0.01	0.0005439	0.01171
12/18/2019	<0.01	0.0005227	0.01154
1/22/2020	<0.01	0.0004835	0.01123
4/23/2020	0.000556 (J)	0.0003587	0.0104
7/22/2020	0.00218 (J)	0.0001731	0.01
10/14/2020	0.000225 (J)	-0.0002248	0.01
4/27/2021	0.00097 (J)	-0.001632	0.01
10/18/2021	<0.0002	-0.00329	0.01
4/19/2022	0.00168 (J)	-0.004983	0.01
10/18/2022	0.00027 (J)	-0.006587	0.01
4/18/2023	0.000209 (J)	-0.008628	0.01

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A
10/19/2018	<0.01
11/27/2018	<0.01
12/24/2018	<0.01
1/22/2019	0.013
4/22/2019	<0.01
6/18/2019	<0.01
8/13/2019	<0.01
10/29/2019	<0.01
11/29/2019	<0.01
12/18/2019	<0.01
1/22/2020	<0.01
4/23/2020	0.00326 (J)
10/13/2020	0.00644
4/27/2021	0.00387 (J)
10/18/2021	0.0104
4/18/2022	0.00567
10/18/2022	0.0108
4/17/2023	0.00313 (J)

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

MW-6A (bg)

2/26/2017	0.48
7/29/2017	0.433
9/10/2017	0.415
10/14/2017	0.394
11/11/2017	0.412
1/6/2018	0.38
3/3/2018	0.42
4/14/2018	0.51
5/26/2018	0.362
6/23/2018	0.42
7/29/2018	0.416
9/2/2018	0.38
10/24/2018	0.39
11/27/2018	0.37
1/29/2019	0.42
4/22/2019	0.35
8/13/2019	0.42
10/29/2019	0.43
1/22/2020	0.43
4/23/2020	0.458
10/14/2020	0.352
4/27/2021	0.467
10/18/2021	0.48
4/19/2022	0.442
10/19/2022	0.471
4/18/2023	0.379

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:42 AM

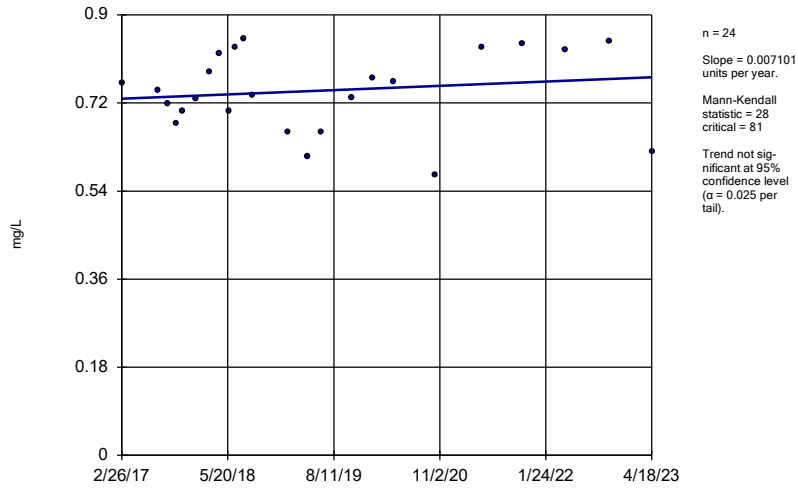
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

MW-8A

2/26/2017	0.39
7/29/2017	0.359
9/10/2017	0.346
10/14/2017	0.31
11/11/2017	0.322
1/6/2018	0.344
3/3/2018	0.363
4/14/2018	0.396
5/26/2018	0.333
6/23/2018	0.743
7/29/2018	0.415
9/2/2018	0.352
10/19/2018	0.38
11/27/2018	0.26
1/29/2019	0.24
4/22/2019	0.23
6/18/2019	0.3
10/29/2019	0.35
1/22/2020	0.36
4/23/2020	0.122
10/14/2020	0.29
4/27/2021	0.415
10/20/2021	0.26
4/21/2022	0.337
10/24/2022	0.266
4/18/2023	0.35

### Sen's Slope Estimator

MW-9A



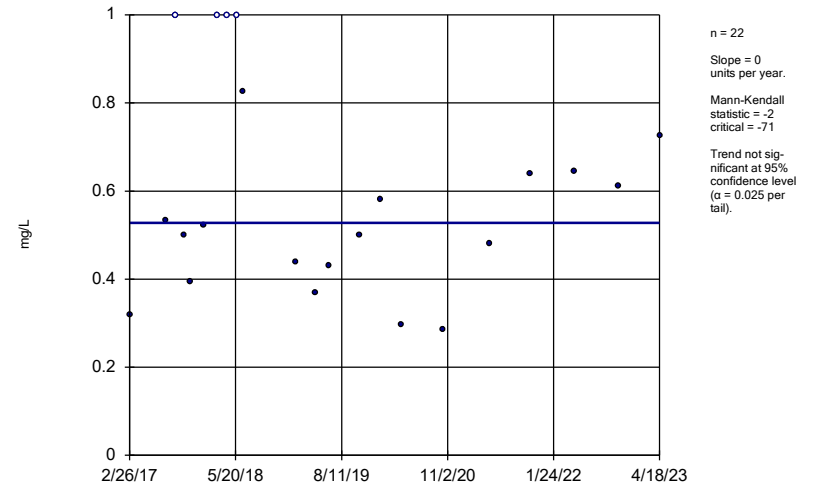
Constituent: Fluoride Analysis Run 1/23/2024 11:34 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Hollow symbols indicate censored values.

### Sen's Slope Estimator

MW-10A

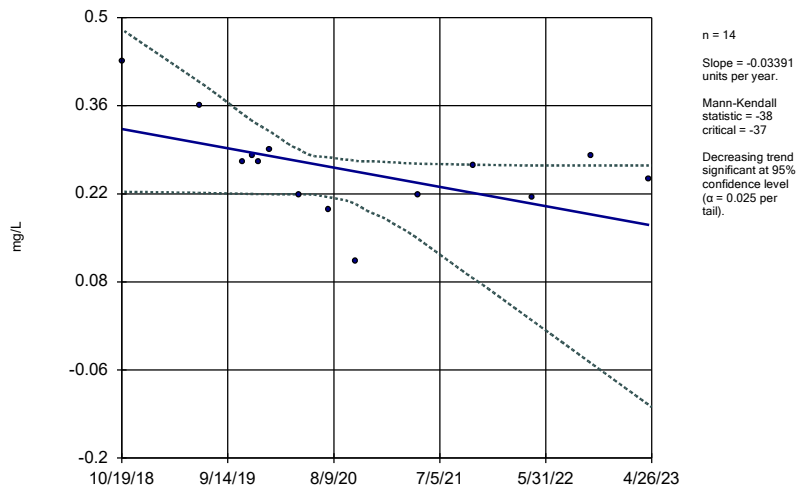


Constituent: Fluoride Analysis Run 1/23/2024 11:34 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-11A

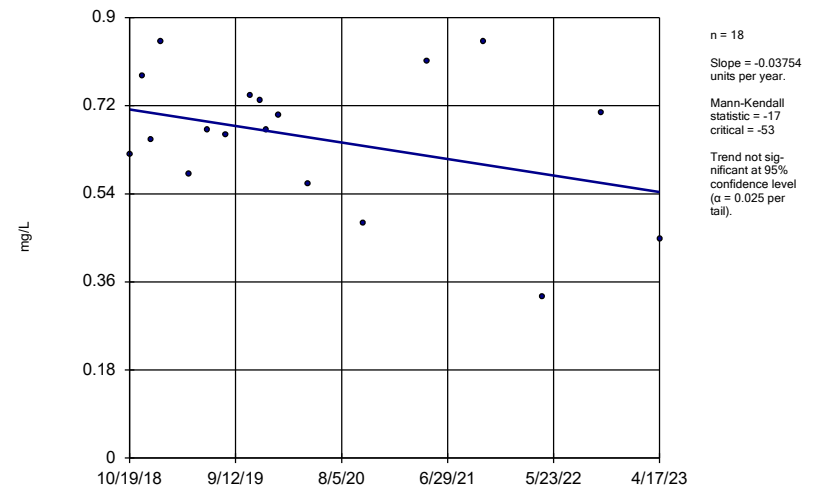


Constituent: Fluoride Analysis Run 1/23/2024 11:34 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-12A



Constituent: Fluoride Analysis Run 1/23/2024 11:34 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM



# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

MW-9A

2/26/2017	0.76
7/29/2017	0.747
9/10/2017	0.717
10/14/2017	0.679
11/11/2017	0.703
1/6/2018	0.729
3/3/2018	0.784
4/14/2018	0.822
5/26/2018	0.702
6/23/2018	0.834
7/29/2018	0.85
9/2/2018	0.735
1/30/2019	0.66
4/22/2019	0.61
6/18/2019	0.66
10/29/2019	0.73
1/22/2020	0.77
4/23/2020	0.763
10/14/2020	0.574
4/27/2021	0.834
10/19/2021	0.842
4/19/2022	0.828
10/19/2022	0.846
4/18/2023	0.62

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
2/26/2017	0.32
7/29/2017	0.533
9/10/2017	<1
10/14/2017	0.5
11/11/2017	0.394
1/6/2018	0.522
3/3/2018	<1
4/14/2018	<1
5/26/2018	<1
6/23/2018	0.826
1/30/2019	0.44
4/22/2019	0.37
6/18/2019	0.43
10/29/2019	0.5
1/22/2020	0.58
4/23/2020	0.296
10/14/2020	0.285 (J)
4/27/2021	0.48
10/20/2021	0.64
4/20/2022	0.646
10/24/2022	0.611
4/18/2023	0.727

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	0.43	0.2233	0.4813
6/18/2019	0.36	0.2215	0.3977
10/29/2019	0.27	0.2201	0.3474
11/29/2019	0.28	0.2197	0.336
12/18/2019	0.27	0.2196	0.3297
1/22/2020	0.29	0.2195	0.3194
4/23/2020	0.219	0.2192	0.2906
7/22/2020	0.195	0.2148	0.2782
10/14/2020	0.113	0.2044	0.2725
4/27/2021	0.219	0.149	0.2679
10/18/2021	0.265	0.0853	0.2663
4/19/2022	0.214	0.0184	0.265
10/18/2022	0.28	-0.04884	0.265
4/18/2023	0.243	-0.1161	0.265

# Sen's Slope Estimator

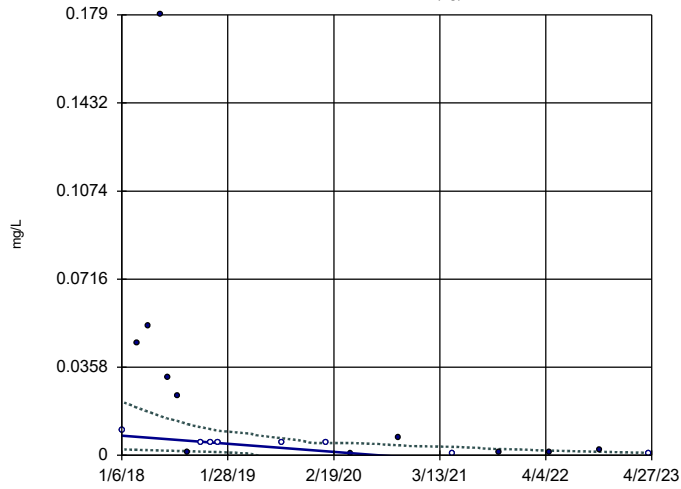
Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A
10/19/2018	0.62
11/27/2018	0.78
12/24/2018	0.65
1/22/2019	0.85
4/22/2019	0.58
6/18/2019	0.67
8/13/2019	0.66
10/29/2019	0.74
11/29/2019	0.73
12/18/2019	0.67
1/22/2020	0.7
4/23/2020	0.56
10/13/2020	0.481 (J)
4/27/2021	0.811
10/18/2021	0.85
4/18/2022	0.33 (J)
10/18/2022	0.705
4/17/2023	0.448

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



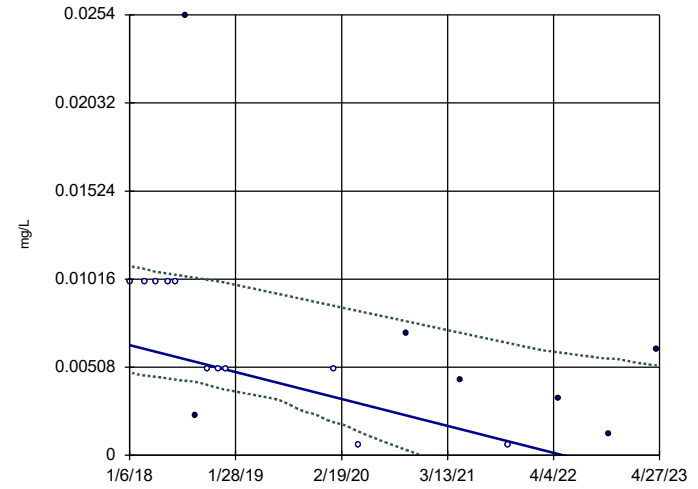
n = 19  
Slope = -0.003103  
units per year.  
Mann-Kendall  
statistic = -98  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A



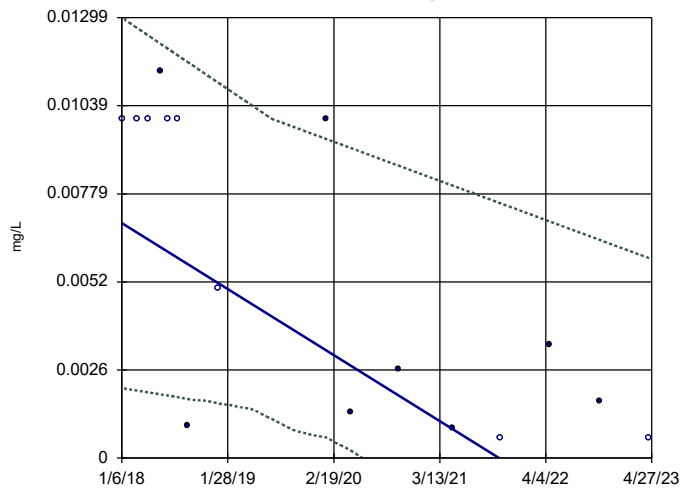
n = 18  
Slope = -0.001464  
units per year.  
Mann-Kendall  
statistic = -72  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-9A



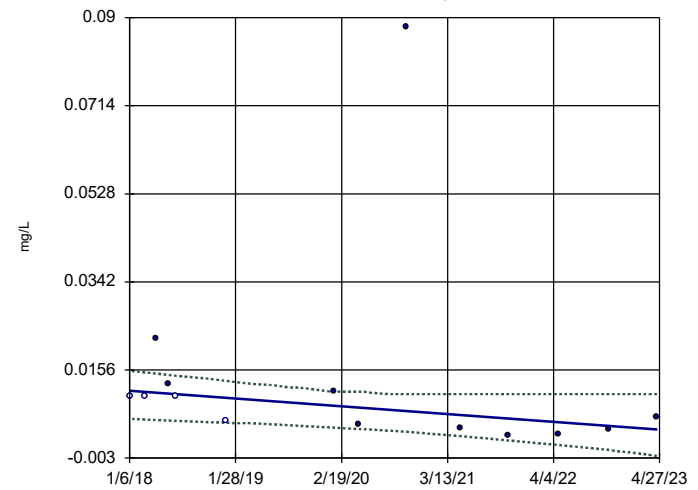
n = 16  
Slope = -0.001835  
units per year.  
Mann-Kendall  
statistic = -68  
critical = -45  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-10A



n = 14  
Slope = -0.001547  
units per year.  
Mann-Kendall  
statistic = -38  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.002396	0.02183
3/3/2018	0.0456	0.002228	0.01934
4/14/2018	0.0525	0.002102	0.01766
5/26/2018	0.179	0.001976	0.01598
6/23/2018	0.0317	0.001892	0.01493
7/29/2018	0.0242	0.001784	0.01396
9/2/2018	0.00106	0.001679	0.01272
10/24/2018	<0.005	0.001519	0.01138
11/27/2018	<0.005	0.001414	0.01061
12/24/2018	<0.005	0.00134	0.01
8/13/2019	<0.005	-0.003176	0.006951
1/22/2020	<0.005	-0.008884	0.005
4/23/2020	0.000869 (J)	-0.01213	0.005
10/14/2020	0.00702	-0.01826	0.004097
4/27/2021	<0.0006	-0.02513	0.003467
10/18/2021	0.00134 (J)	-0.03146	0.002561
4/19/2022	0.00111 (J)	-0.03813	0.001912
10/19/2022	0.00245	-0.04479	0.001446
4/18/2023	<0.0006	-0.05138	0.0009852

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.004784	0.0109
3/3/2018	<0.01	0.004601	0.01075
4/14/2018	<0.01	0.004526	0.01058
5/26/2018	<0.01	0.00443	0.01048
6/23/2018	<0.01	0.004366	0.01041
7/29/2018	0.0254	0.004302	0.01032
9/2/2018	0.00232	0.004238	0.01024
10/19/2018	<0.005	0.004052	0.01013
11/27/2018	<0.005	0.003878	0.01003
12/24/2018	<0.005	0.00378	0.009953
1/22/2020	<0.005	0.001906	0.008624
4/23/2020	<0.0006	0.00136	0.008314
10/14/2020	0.00706	0.0003052	0.007728
4/27/2021	0.00437	-0.001003	0.00707
10/20/2021	<0.0006	-0.002218	0.006477
4/21/2022	0.00327	-0.003482	0.005943
10/24/2022	0.00122 (J)	-0.004767	0.005575
4/18/2023	0.00615	-0.005983	0.00518

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.002064	0.01299
3/3/2018	<0.01	0.001991	0.01268
4/14/2018	<0.01	0.001937	0.01245
5/26/2018	0.0114	0.001882	0.01223
6/23/2018	<0.01	0.001845	0.01207
7/29/2018	<0.01	0.001799	0.01188
9/2/2018	0.00095	0.001744	0.01169
12/24/2018	<0.005	0.001613	0.01107
1/22/2020	0.01	0.0006137	0.009413
4/23/2020	0.00135 (J)	0.0002138	0.009139
10/14/2020	0.00263	-0.0007514	0.008621
4/27/2021	0.000899 (J)	-0.001867	0.00804
10/19/2021	<0.0006	-0.002856	0.007519
4/19/2022	0.00334	-0.003808	0.006977
10/19/2022	0.0017 (J)	-0.004761	0.006432
4/18/2023	<0.0006	-0.005756	0.005893



# Sen's Slope Estimator

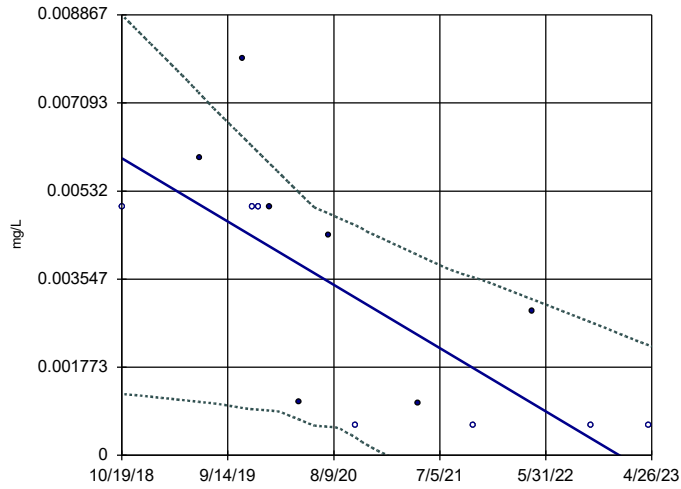
Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A	LCL	UCL
1/6/2018	<0.01	0.005285	0.01544
3/3/2018	<0.01	0.005143	0.01509
4/14/2018	0.0222	0.005036	0.01483
5/26/2018	0.0128	0.004929	0.01457
6/23/2018	<0.01	0.004863	0.01439
12/24/2018	<0.005	0.004453	0.0133
1/22/2020	0.011	0.003434	0.011
4/23/2020	0.00403	0.003141	0.011
10/14/2020	0.0881	0.00257	0.0105
4/27/2021	0.00334	0.001644	0.0105
10/20/2021	0.00172 (J)	0.0007315	0.0105
4/20/2022	0.00208	-0.0002311	0.0105
10/24/2022	0.0032	-0.00127	0.0105
4/18/2023	0.00574	-0.002572	0.0105

Sen's Slope and 95% Confidence Band

MW-11A



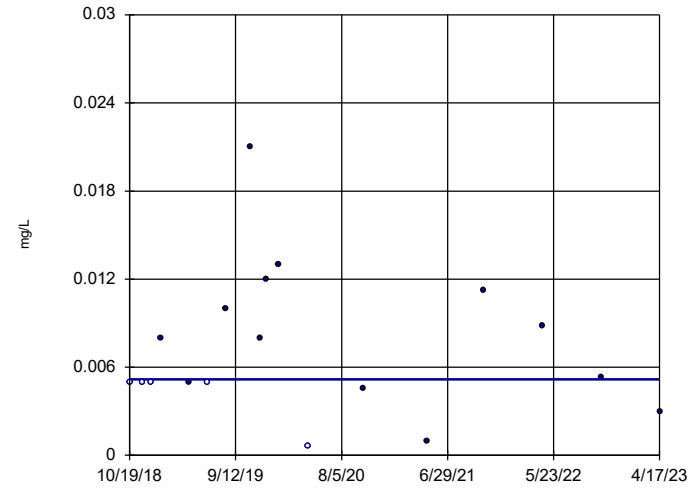
n = 14  
Slope = -0.001408 units per year.  
Mann-Kendall statistic = -61  
critical = -37  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Lead Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Sen's Slope Estimator

MW-12A



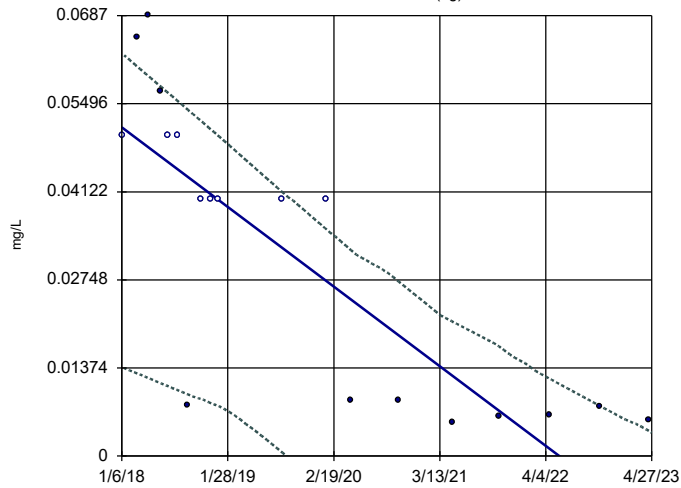
n = 18  
Slope = 0 units per year.  
Mann-Kendall statistic = 0  
critical = 53  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Lead Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Sen's Slope and 95% Confidence Band

MW-6A (bg)



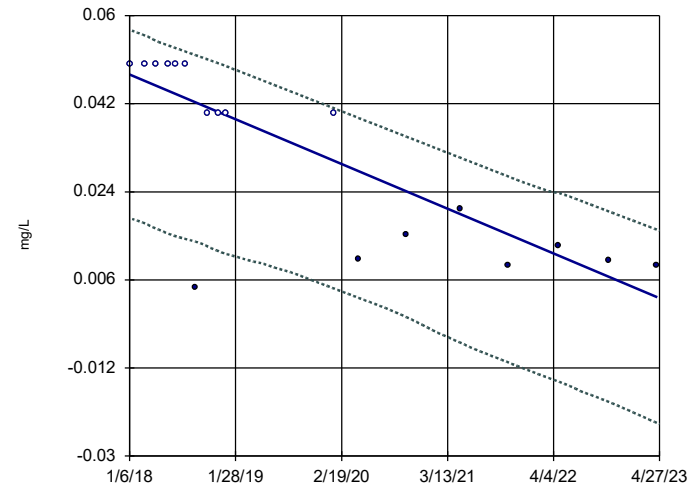
n = 19  
Slope = -0.01171 units per year.  
Mann-Kendall statistic = -122  
critical = -58  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Lithium Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

Sen's Slope and 95% Confidence Band

MW-8A



n = 18  
Slope = -0.008624 units per year.  
Mann-Kendall statistic = -96  
critical = -53  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Lithium Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.001233	0.008867
6/18/2019	0.006	0.001076	0.007285
10/29/2019	0.008	0.000954	0.006418
11/29/2019	<0.005	0.0009289	0.00622
12/18/2019	<0.005	0.000919	0.006098
1/22/2020	0.005	0.0009009	0.005875
4/23/2020	0.00107 (J)	0.000719	0.005287
7/22/2020	0.00444	0.0005767	0.004873
10/14/2020	<0.0006	0.0003668	0.004635
4/27/2021	0.00106 (J)	-0.0003074	0.004034
10/18/2021	<0.0006	-0.001047	0.003582
4/19/2022	0.00291	-0.001869	0.00314
10/18/2022	<0.0006	-0.002744	0.00268
4/18/2023	<0.0006	-0.003916	0.002211

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A
10/19/2018	<0.005
11/27/2018	<0.005
12/24/2018	<0.005
1/22/2019	0.008
4/22/2019	0.005
6/18/2019	<0.005
8/13/2019	0.01
10/29/2019	0.021
11/29/2019	0.008
12/18/2019	0.012
1/22/2020	0.013
4/23/2020	<0.0006
10/13/2020	0.00458
4/27/2021	0.000997 (J)
10/18/2021	0.0112
4/18/2022	0.00884
10/18/2022	0.00534
4/17/2023	0.00293

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.05	0.01389	0.06296
3/3/2018	0.0654	0.0129	0.06078
4/14/2018	0.0687	0.01215	0.05925
5/26/2018	0.0569	0.01141	0.05772
6/23/2018	<0.05	0.01092	0.0567
7/29/2018	<0.05	0.01028	0.05539
9/2/2018	0.008	0.009659	0.05412
10/24/2018	<0.04	0.008912	0.05222
11/27/2018	<0.04	0.008299	0.05098
12/24/2018	<0.04	0.00783	0.05
8/13/2019	<0.04	0.0006441	0.04128
1/22/2020	<0.04	-0.004946	0.03543
4/23/2020	0.00865	-0.008121	0.03211
10/14/2020	0.00863	-0.01413	0.02722
4/27/2021	0.00518	-0.02085	0.02101
10/18/2021	0.0063	-0.02687	0.01704
4/19/2022	0.00636	-0.03363	0.01206
10/19/2022	0.00766	-0.04056	0.007838
4/18/2023	0.00555	-0.04694	0.003866

# Sen's Slope Estimator

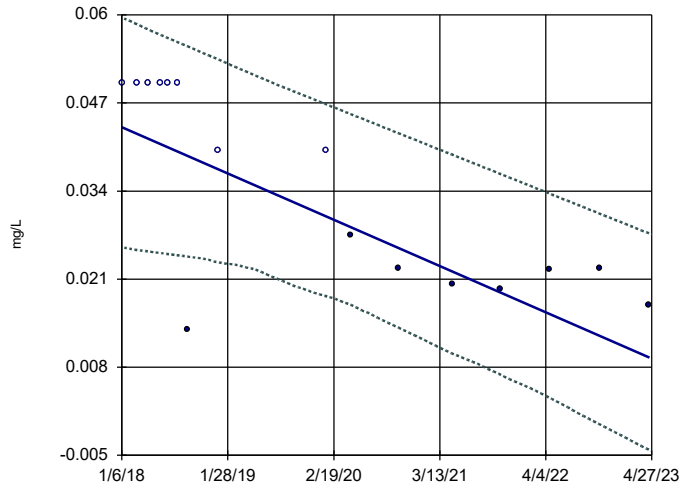
Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.05	0.01861	0.05712
3/3/2018	<0.05	0.01751	0.05594
4/14/2018	<0.05	0.01647	0.05478
5/26/2018	<0.05	0.01548	0.05393
6/23/2018	<0.05	0.01493	0.05338
7/29/2018	<0.05	0.01436	0.05266
9/2/2018	0.0044	0.01386	0.05197
10/19/2018	<0.04	0.01282	0.05103
11/27/2018	<0.04	0.01187	0.05026
12/24/2018	<0.04	0.01133	0.04969
1/22/2020	<0.04	0.004262	0.04108
4/23/2020	0.0102	0.002314	0.03907
10/14/2020	0.0153	-0.001625	0.03526
4/27/2021	0.0204 (J)	-0.006791	0.031
10/20/2021	0.00903	-0.01085	0.02715
4/21/2022	0.0129	-0.01475	0.02378
10/24/2022	0.00993	-0.01895	0.01998
4/18/2023	0.00907	-0.02326	0.01625

### Sen's Slope and 95% Confidence Band

MW-9A



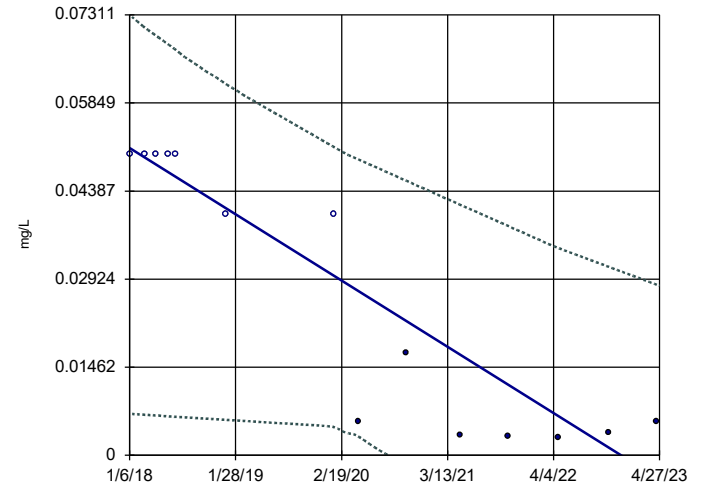
n = 16  
Slope = -0.006438  
units per year.  
Mann-Kendall  
statistic = -75  
critical = -45  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-10A



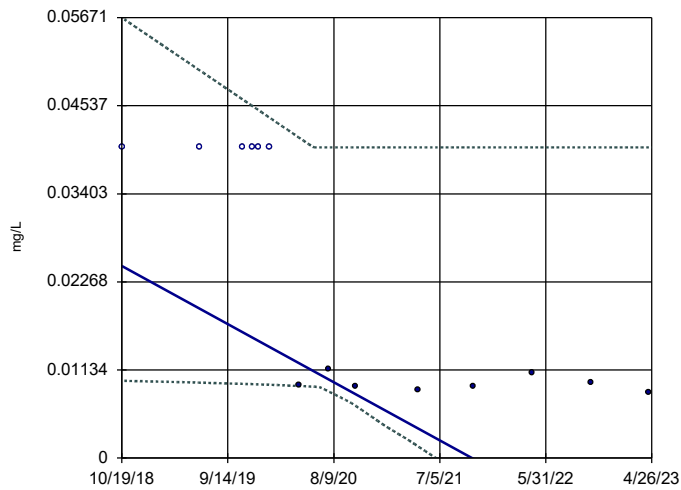
n = 14  
Slope = -0.01037  
units per year.  
Mann-Kendall  
statistic = -62  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-11A



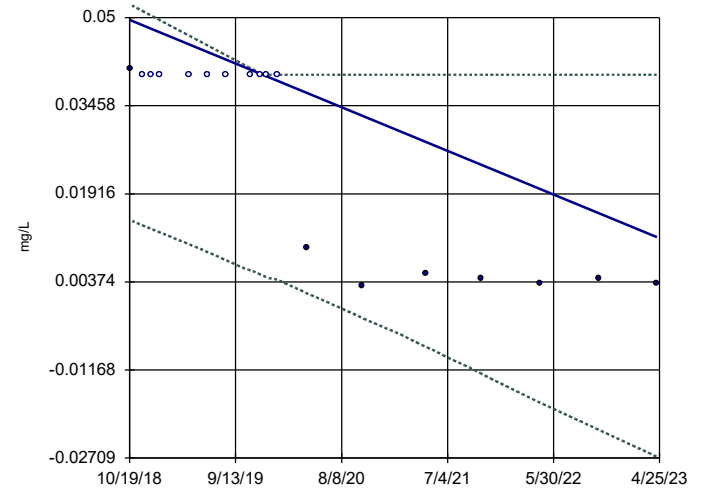
n = 14  
Slope = -0.008282  
units per year.  
Mann-Kendall  
statistic = -54  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-12A



n = 18  
Slope = -0.008468  
units per year.  
Mann-Kendall  
statistic = -94  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.05	0.02572	0.0596
3/3/2018	<0.05	0.0253	0.0586
4/14/2018	<0.05	0.02508	0.05782
5/26/2018	<0.05	0.02486	0.05709
6/23/2018	<0.05	0.02471	0.05661
7/29/2018	<0.05	0.02452	0.05598
9/2/2018	0.0136	0.02434	0.05538
12/24/2018	<0.04	0.02349	0.05342
1/22/2020	<0.04	0.0185	0.04682
4/23/2020	0.0275	0.0172	0.04533
10/14/2020	0.0227	0.01382	0.04253
4/27/2021	0.0202	0.01004	0.03938
10/19/2021	0.0195	0.006949	0.03655
4/19/2022	0.0225	0.003475	0.03361
10/19/2022	0.0227	-0.0004349	0.03066
4/18/2023	0.0172	-0.004207	0.02774



# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A	LCL	UCL
1/6/2018	<0.05	0.006889	0.07311
3/3/2018	<0.05	0.006733	0.07096
4/14/2018	<0.05	0.006616	0.06962
5/26/2018	<0.05	0.006472	0.06826
6/23/2018	<0.05	0.006395	0.06733
12/24/2018	<0.04	0.005893	0.06162
1/22/2020	<0.04	0.004727	0.0512
4/23/2020	0.00552	0.003086	0.04907
10/14/2020	0.017	-0.001751	0.04556
4/27/2021	0.00346 (J)	-0.007196	0.04162
10/20/2021	0.00311 (J)	-0.01225	0.03807
4/20/2022	0.00292 (J)	-0.01773	0.03444
10/24/2022	0.00385 (J)	-0.02332	0.03127
4/18/2023	0.00553	-0.02853	0.0283

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.04	0.009953	0.05671
6/18/2019	<0.04	0.009714	0.04994
10/29/2019	<0.04	0.009559	0.04621
11/29/2019	<0.04	0.009518	0.04535
12/18/2019	<0.04	0.009491	0.04481
1/22/2020	<0.04	0.009442	0.04383
4/23/2020	0.0094	0.009292	0.04126
7/22/2020	0.0114	0.008626	0.04
10/14/2020	0.00917	0.006776	0.04
4/27/2021	0.00877	0.001546	0.04
10/18/2021	0.0092	-0.003073	0.04
4/19/2022	0.011	-0.008089	0.04
10/18/2022	0.00969	-0.01336	0.04
4/18/2023	0.00839	-0.01959	0.04

# Sen's Slope Estimator

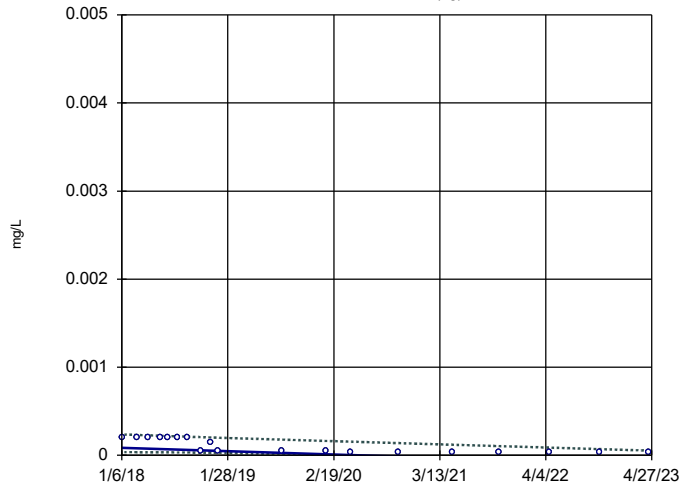
Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	0.041	0.01456	0.05236
11/27/2018	<0.04	0.01367	0.0512
12/24/2018	<0.04	0.01305	0.05039
1/22/2019	<0.04	0.01239	0.04953
4/22/2019	<0.04	0.01033	0.04685
6/18/2019	<0.04	0.008982	0.04515
8/13/2019	<0.04	0.00758	0.04348
10/29/2019	<0.04	0.00577	0.04119
11/29/2019	<0.04	0.00509	0.04027
12/18/2019	<0.04	0.00462	0.04
1/22/2020	<0.04	0.00412	0.04
4/23/2020	0.00975	0.001756	0.04
10/13/2020	0.00301 (J)	-0.002629	0.04
4/27/2021	0.00528	-0.00761	0.04
10/18/2021	0.00444 (J)	-0.01234	0.04
4/18/2022	0.00346 (J)	-0.01739	0.04
10/18/2022	0.00444 (J)	-0.02215	0.04
4/17/2023	0.00346 (J)	-0.02688	0.04

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



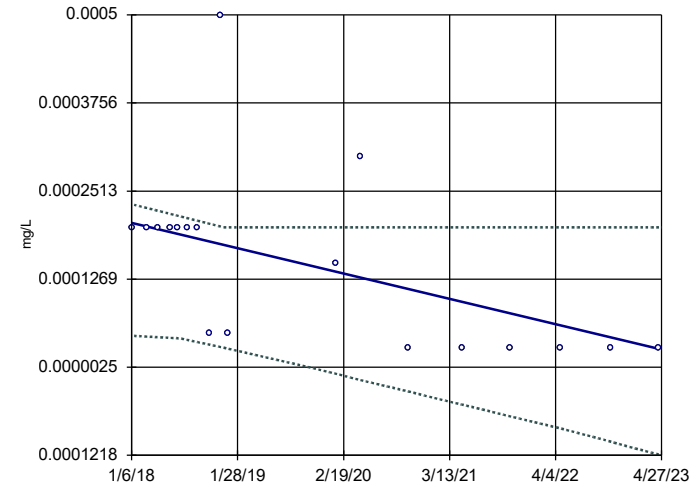
n = 19  
Slope = -0.00003599  
units per year.  
Mann-Kendall  
statistic = -121  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A



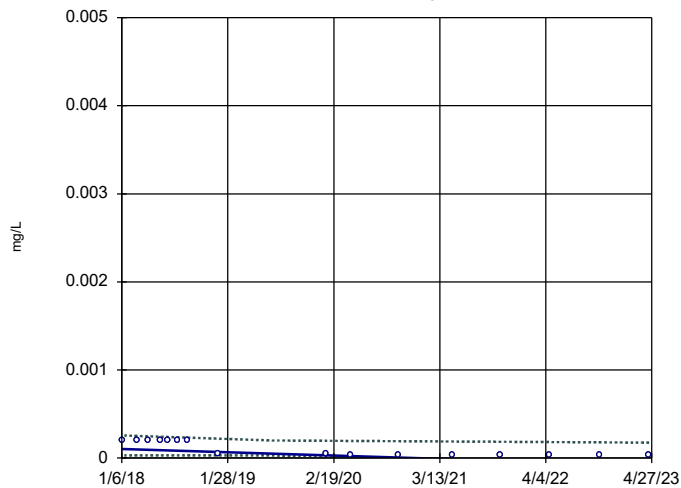
n = 18  
Slope = -0.00003367  
units per year.  
Mann-Kendall  
statistic = -76  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-9A



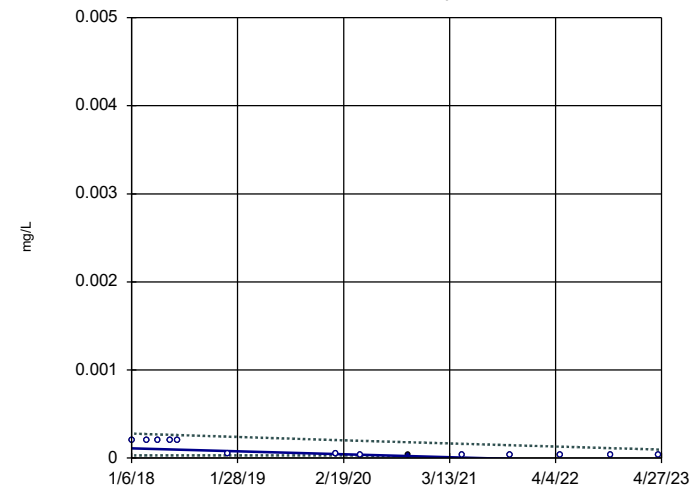
n = 16  
Slope = -0.00003498  
units per year.  
Mann-Kendall  
statistic = -77  
critical = -45  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-10A



n = 14  
Slope = -0.00003218  
units per year.  
Mann-Kendall  
statistic = -63  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.0002	0.00003646	0.0002368
3/3/2018	<0.0002	0.00003543	0.0002309
4/14/2018	<0.0002	0.00003466	0.0002265
5/26/2018	<0.0002	0.00003389	0.0002221
6/23/2018	<0.0002	0.00003338	0.0002192
7/29/2018	<0.0002	0.00003272	0.0002155
9/2/2018	<0.0002	0.00003207	0.0002118
10/24/2018	<5E-05	0.00003112	0.0002064
11/27/2018	<0.00015	0.0000305	0.0002028
12/24/2018	<5E-05	0.00003	0.0002
8/13/2019	<5E-05	0.000009983	0.0001784
1/22/2020	<5E-05	-0.000005636	0.0001634
4/23/2020	<3E-05	-0.00001617	0.0001549
10/14/2020	<3E-05	-0.0000398	0.0001387
4/27/2021	<3E-05	-0.00006633	0.0001206
10/18/2021	<3E-05	-0.00009	0.0001044
4/19/2022	<3E-05	-0.0001149	0.00008741
10/19/2022	<3E-05	-0.0001398	0.00007041
4/18/2023	<3E-05	-0.0001672	0.0000536

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.0002	0.00004695	0.0002328
3/3/2018	<0.0002	0.0000458	0.0002274
4/14/2018	<0.0002	0.00004493	0.0002233
5/26/2018	<0.0002	0.00004407	0.0002192
6/23/2018	<0.0002	0.00004349	0.0002165
7/29/2018	<0.0002	0.00004106	0.000213
9/2/2018	<0.0002	0.00003817	0.0002096
10/19/2018	<5E-05	0.00003429	0.000205
11/27/2018	<0.0005	0.00003107	0.0002013
12/24/2018	<5E-05	0.00002877	0.0002
1/22/2020	<0.00015	-0.000006513	0.0002
4/23/2020	<0.0003	-0.00001577	0.0002
10/14/2020	<3E-05	-0.00003169	0.0002
4/27/2021	<3E-05	-0.00005017	0.0002
10/20/2021	<3E-05	-0.00006674	0.0002
4/21/2022	<3E-05	-0.00008369	0.0002
10/24/2022	<3E-05	-0.0001026	0.0002
4/18/2023	<3E-05	-0.0001209	0.0002

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.0002	0.00003	0.0002576
3/3/2018	<0.0002	0.00003	0.0002517
4/14/2018	<0.0002	0.00003	0.0002473
5/26/2018	<0.0002	0.00003	0.0002429
6/23/2018	<0.0002	0.00003	0.00024
7/29/2018	<0.0002	0.00003	0.0002362
9/2/2018	<0.0002	0.00003	0.0002325
12/24/2018	<5E-05	0.00003	0.0002207
1/22/2020	<5E-05	0.00001138	0.0001965
4/23/2020	<3E-05	0.000002413	0.0001949
10/14/2020	<3E-05	-0.00001554	0.0001918
4/27/2021	<3E-05	-0.00003764	0.0001884
10/19/2021	<3E-05	-0.0000568	0.0001853
4/19/2022	<3E-05	-0.0000776	0.000182
10/19/2022	<3E-05	-0.0001005	0.0001788
4/18/2023	<3E-05	-0.0001239	0.0001756

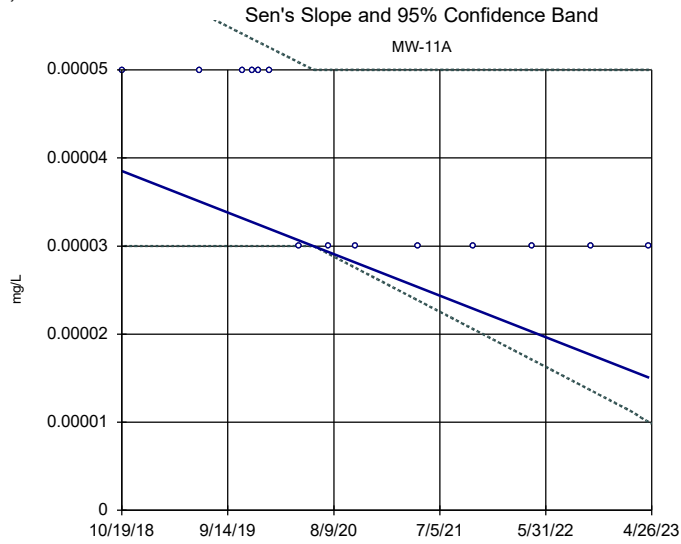
# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

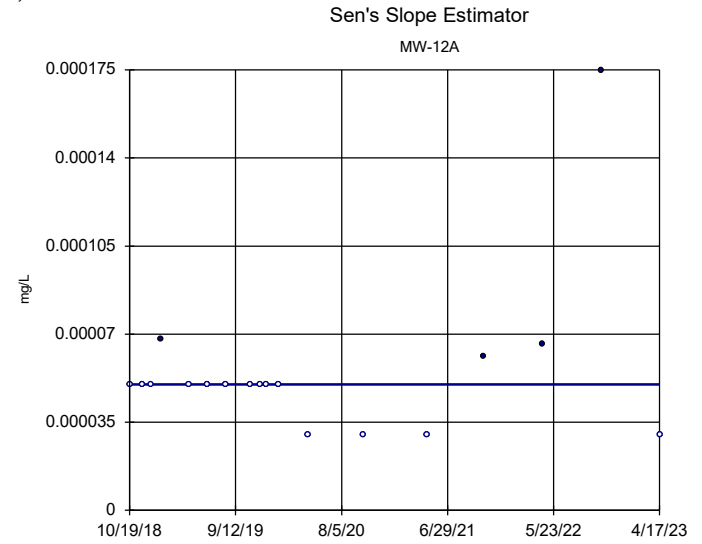
	MW-10A	LCL	UCL
1/6/2018	<0.0002	0.00003	0.0002781
3/3/2018	<0.0002	0.00003	0.0002726
4/14/2018	<0.0002	0.00003	0.0002685
5/26/2018	<0.0002	0.00003	0.0002643
6/23/2018	<0.0002	0.00003	0.0002615
12/24/2018	<5E-05	0.00003	0.0002434
1/22/2020	<5E-05	0.00003	0.0002045
4/23/2020	<3E-05	0.00002782	0.0001958
10/14/2020	3.4E-05 (J)	0.00001198	0.00018
4/27/2021	<3E-05	-0.000008552	0.0001623
10/20/2021	<3E-05	-0.00002777	0.0001463
4/20/2022	<3E-05	-0.0000493	0.0001298
10/24/2022	<3E-05	-0.00007212	0.0001128
4/18/2023	<3E-05	-0.00009281	0.00009684





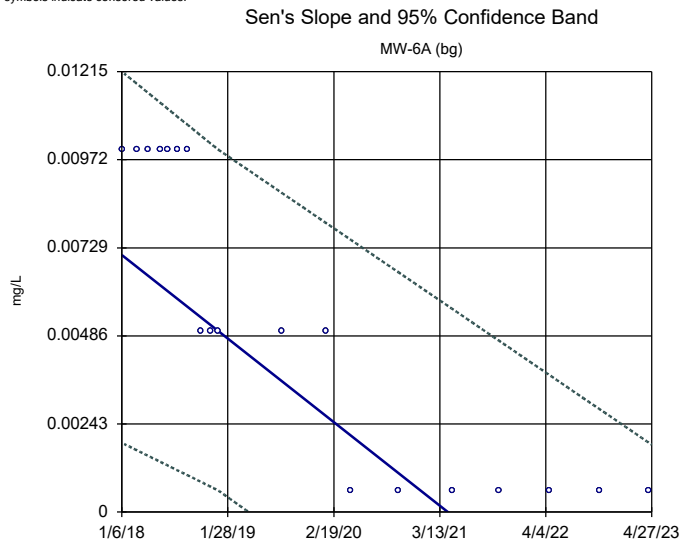
n = 14  
Slope = -0.00005214 units per year.  
Mann-Kendall statistic = -48  
critical = -37  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Mercury Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM



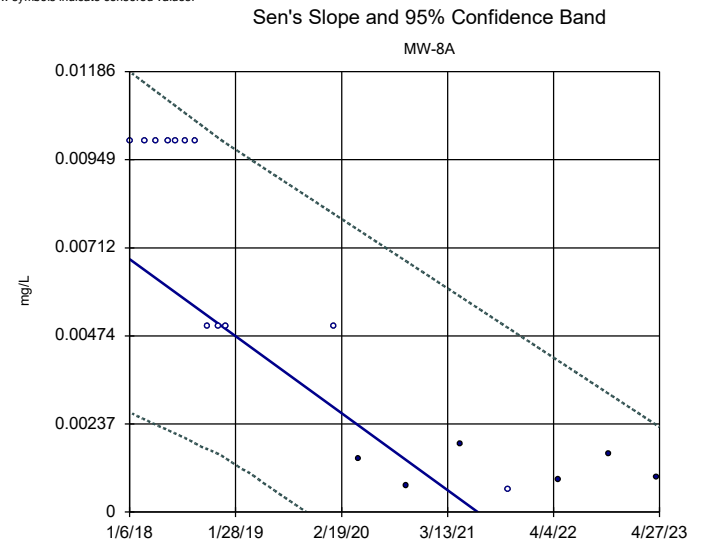
n = 18  
Slope = 0 units per year.  
Mann-Kendall statistic = -10  
critical = -53  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Mercury Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM



n = 19  
Slope = -0.002173 units per year.  
Mann-Kendall statistic = -119  
critical = -58  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Molybdenum Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM



n = 18  
Slope = -0.001955 units per year.  
Mann-Kendall statistic = -104  
critical = -53  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Molybdenum Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<5E-05	0.00003	0.00006117
6/18/2019	<5E-05	0.00003	0.00005654
10/29/2019	<5E-05	0.00003	0.00005409
11/29/2019	<5E-05	0.00003	0.00005352
12/18/2019	<5E-05	0.00003	0.00005317
1/22/2020	<5E-05	0.00003	0.00005253
4/23/2020	<3E-05	0.00003	0.00005083
7/22/2020	<3E-05	0.00002915	0.00005
10/14/2020	<3E-05	0.00002755	0.00005
4/27/2021	<3E-05	0.00002385	0.00005
10/18/2021	<3E-05	0.00002055	0.00005
4/19/2022	<3E-05	0.00001708	0.00005
10/18/2022	<3E-05	0.00001362	0.00005
4/18/2023	<3E-05	0.000009999	0.00005

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A
10/19/2018	<5E-05
11/27/2018	<5E-05
12/24/2018	<5E-05
1/22/2019	6.8E-05
4/22/2019	<5E-05
6/18/2019	<5E-05
8/13/2019	<5E-05
10/29/2019	<5E-05
11/29/2019	<5E-05
12/18/2019	<5E-05
1/22/2020	<5E-05
4/23/2020	<3E-05
10/13/2020	<3E-05
4/27/2021	<3E-05
10/18/2021	6.1E-05 (JH)
4/18/2022	6.6E-05 (J)
10/18/2022	0.000175 (J)
4/17/2023	<3E-05

# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.00191	0.01215
3/3/2018	<0.01	0.001702	0.01181
4/14/2018	<0.01	0.001546	0.01155
5/26/2018	<0.01	0.001389	0.01129
6/23/2018	<0.01	0.001285	0.01112
7/29/2018	<0.01	0.001151	0.0109
9/2/2018	<0.01	0.001021	0.01069
10/24/2018	<0.005	0.0008271	0.01037
11/27/2018	<0.005	0.0007005	0.01016
12/24/2018	<0.005	0.0006	0.01
8/13/2019	<0.005	-0.0006483	0.008808
1/22/2020	<0.005	-0.00152	0.007976
4/23/2020	<0.0006	-0.002015	0.007504
10/14/2020	<0.0006	-0.002951	0.00661
4/27/2021	<0.0006	-0.004	0.005608
10/18/2021	<0.0006	-0.004937	0.004714
4/19/2022	<0.0006	-0.005921	0.003774
10/19/2022	<0.0006	-0.006954	0.002834
4/18/2023	<0.0006	-0.008426	0.001905

# Sen's Slope Estimator

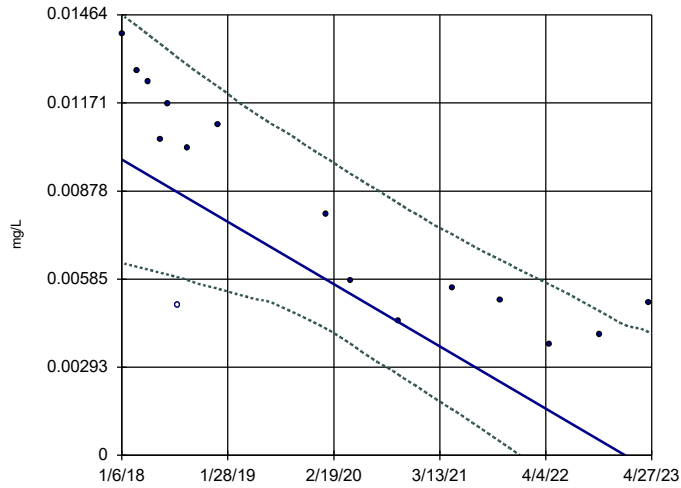
Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.002693	0.01186
3/3/2018	<0.01	0.002489	0.01155
4/14/2018	<0.01	0.002348	0.01132
5/26/2018	<0.01	0.002206	0.01109
6/23/2018	<0.01	0.002112	0.01094
7/29/2018	<0.01	0.001991	0.01074
9/2/2018	<0.01	0.001853	0.01055
10/19/2018	<0.005	0.00169	0.01029
11/27/2018	<0.005	0.001569	0.01007
12/24/2018	<0.005	0.001443	0.009932
1/22/2020	<0.005	-0.0005093	0.008033
4/23/2020	0.00145 (J)	-0.0009589	0.007589
10/14/2020	0.000698 (J)	-0.001797	0.00675
4/27/2021	0.00185 (J)	-0.002806	0.00581
10/20/2021	<0.0006	-0.003714	0.004961
4/21/2022	0.000879 (J)	-0.004699	0.004079
10/24/2022	0.00157 (J)	-0.005767	0.003182
4/18/2023	0.000954 (J)	-0.006805	0.002333

### Sen's Slope and 95% Confidence Band

MW-9A



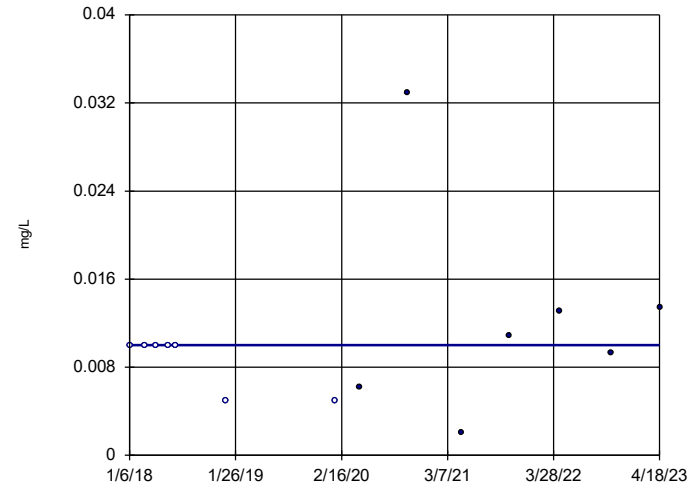
n = 16  
Slope = -0.001949  
units per year.  
Mann-Kendall  
statistic = -88  
critical = -45  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



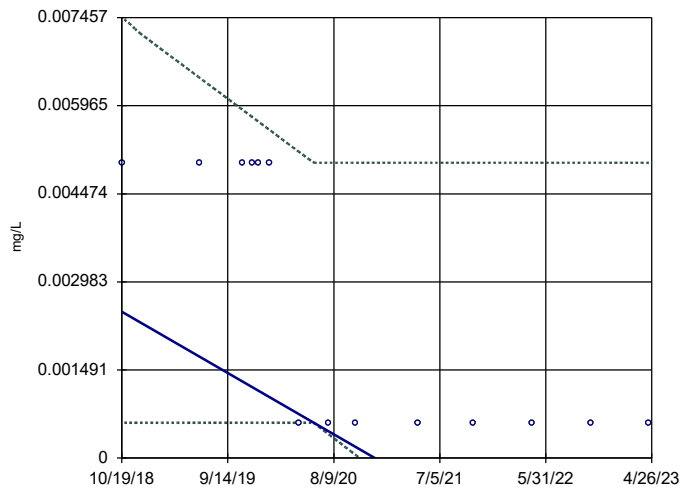
n = 14  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = 10  
critical = 37  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-11A



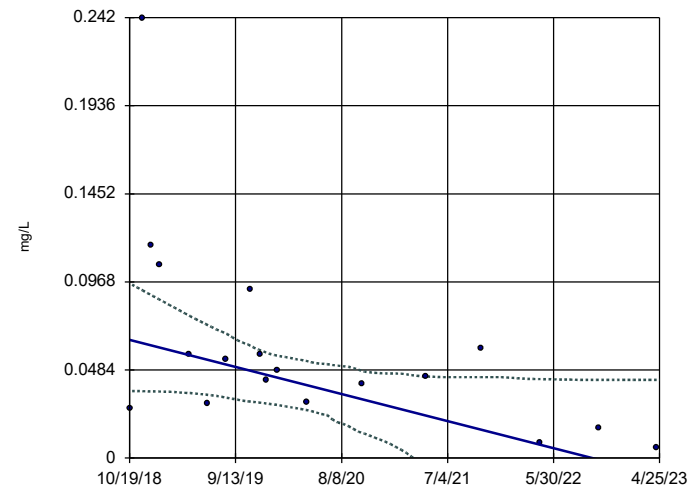
n = 14  
Slope = -0.001147  
units per year.  
Mann-Kendall  
statistic = -48  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-12A



n = 18  
Slope = -0.01648  
units per year.  
Mann-Kendall  
statistic = -72  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 11:35 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	0.014	0.006392	0.01464
3/3/2018	0.0128	0.006264	0.01427
4/14/2018	0.0124	0.006168	0.01397
5/26/2018	0.0105	0.00607	0.01368
6/23/2018	0.0117	0.006004	0.01348
7/29/2018	<0.01	0.00592	0.01322
9/2/2018	0.0102	0.005827	0.01298
12/24/2018	0.011	0.005534	0.01225
1/22/2020	0.008	0.004212	0.009885
4/23/2020	0.00579	0.003696	0.009341
10/14/2020	0.00448 (J)	0.002672	0.00837
4/27/2021	0.00556	0.00153	0.007351
10/19/2021	0.00516	0.0004599	0.006504
4/19/2022	0.00368 (J)	-0.0006843	0.005672
10/19/2022	0.00402 (J)	-0.001762	0.004787
4/18/2023	0.00507	-0.002826	0.004081

# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	<0.01
5/26/2018	<0.01
6/23/2018	<0.01
12/24/2018	<0.005
1/22/2020	<0.005
4/23/2020	0.00613
10/14/2020	0.0329
4/27/2021	0.00204 (J)
10/20/2021	0.0109
4/20/2022	0.0131
10/24/2022	0.00927
4/18/2023	0.0134



# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0006	0.007457
6/18/2019	<0.005	0.0006	0.00644
10/29/2019	<0.005	0.0006	0.0059
11/29/2019	<0.005	0.0006	0.005775
12/18/2019	<0.005	0.0006	0.005698
1/22/2020	<0.005	0.0006	0.005556
4/23/2020	<0.0006	0.0006	0.005182
7/22/2020	<0.0006	0.0004121	0.005
10/14/2020	<0.0006	0.00006148	0.005
4/27/2021	<0.0006	-0.0007526	0.005
10/18/2021	<0.0006	-0.001479	0.005
4/19/2022	<0.0006	-0.002243	0.005
10/18/2022	<0.0006	-0.003003	0.005
4/18/2023	<0.0006	-0.0038	0.005

# Sen's Slope Estimator

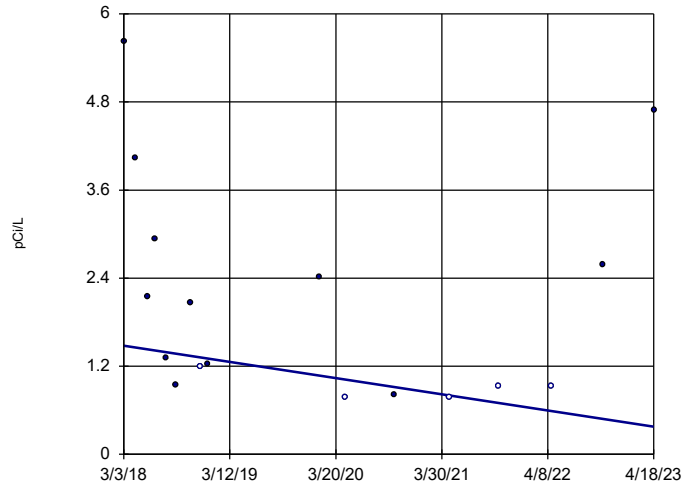
Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:42 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	0.027	0.0369	0.09602
11/27/2018	0.242	0.03676	0.09228
12/24/2018	0.117	0.03667	0.08969
1/22/2019	0.106	0.03656	0.08691
4/22/2019	0.057	0.03577	0.07829
6/18/2019	0.03	0.03476	0.07316
8/13/2019	0.054	0.03331	0.06858
10/29/2019	0.093	0.03106	0.06179
11/29/2019	0.057	0.03047	0.05929
12/18/2019	0.043	0.02998	0.05807
1/22/2020	0.048	0.02921	0.05626
4/23/2020	0.0306	0.02637	0.0532
10/13/2020	0.0411	0.0138	0.04774
4/27/2021	0.0445	-0.004915	0.04488
10/18/2021	0.0605	-0.02127	0.0445
4/18/2022	0.00822	-0.04635	0.0434
10/18/2022	0.0166	-0.07166	0.043
4/17/2023	0.00582	-0.09669	0.043

### Sen's Slope Estimator

MW-6A (bg)

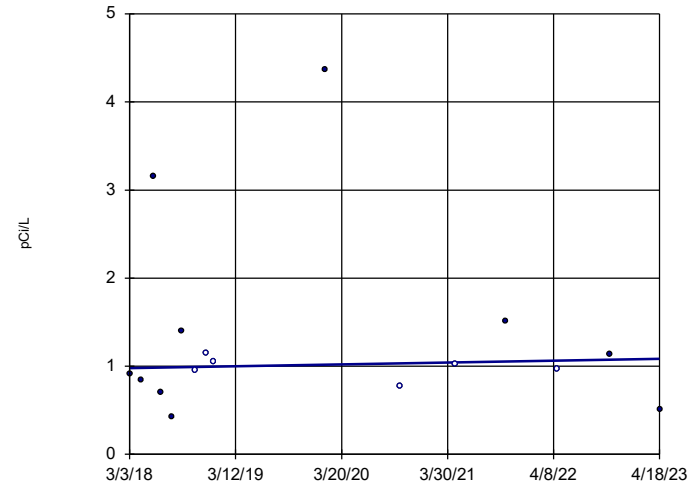


n = 17  
Slope = -0.2146  
units per year.  
Mann-Kendall  
statistic = -42  
critical = -49  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-8A

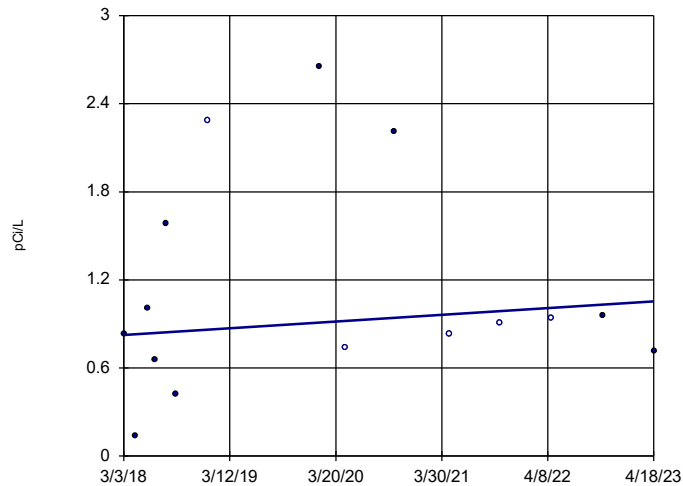


n = 16  
Slope = 0.02062  
units per year.  
Mann-Kendall  
statistic = 6  
critical = 45  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-9A

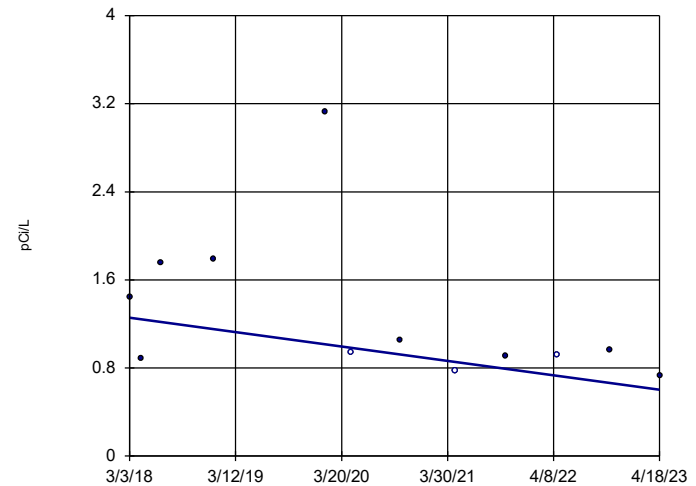


n = 15  
Slope = 0.04467  
units per year.  
Mann-Kendall  
statistic = 13  
critical = 41  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



n = 12  
Slope = -0.1271  
units per year.  
Mann-Kendall  
statistic = -22  
critical = -30  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)
3/3/2018	5.62
4/14/2018	4.04
5/26/2018	2.151
6/23/2018	2.94
7/29/2018	1.305
9/2/2018	0.939
10/24/2018	2.067
11/27/2018	<1.197
12/24/2018	1.222
1/22/2020	2.411
4/23/2020	<0.77
10/14/2020	0.81
4/27/2021	<0.78
10/18/2021	<0.93
4/19/2022	<0.92
10/19/2022	2.59
4/18/2023	4.68

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A
3/3/2018	0.913
4/14/2018	0.843
5/26/2018	3.16
6/23/2018	0.7
7/29/2018	0.423
9/2/2018	1.397
10/19/2018	<0.954
11/27/2018	<1.145
12/24/2018	<1.05
1/22/2020	4.373
10/14/2020	<0.77
4/27/2021	<1.02
10/20/2021	1.51
4/21/2022	<0.97
10/24/2022	1.14
4/18/2023	0.507

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A
3/3/2018	0.8328
4/14/2018	0.13573
5/26/2018	1.005
6/23/2018	0.658
7/29/2018	1.586
9/2/2018	0.421
12/24/2018	<2.288
1/22/2020	2.65
4/23/2020	<0.74
10/14/2020	2.21
4/27/2021	<0.83
10/19/2021	<0.91
4/19/2022	<0.94
10/19/2022	0.954
4/18/2023	0.718

# Sen's Slope Estimator

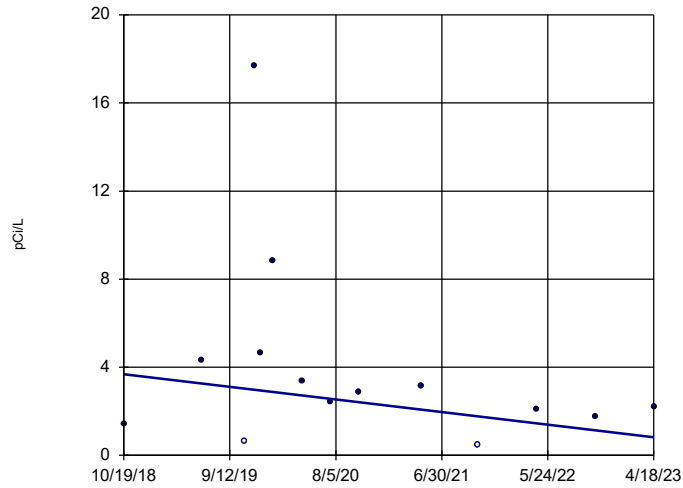
Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
3/3/2018	1.444
4/14/2018	0.882
6/23/2018	1.753
12/24/2018	1.792
1/22/2020	3.13
4/23/2020	<0.94
10/14/2020	1.05
4/27/2021	<0.77
10/20/2021	0.91
4/20/2022	<0.92
10/24/2022	0.966
4/18/2023	0.73

### Sen's Slope Estimator

MW-11A

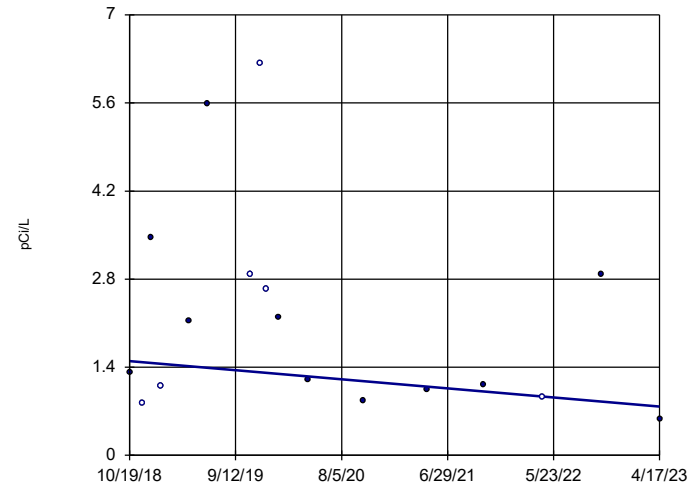


n = 14  
Slope = -0.6335  
units per year.  
Mann-Kendall  
statistic = -25  
critical = -37  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-12A

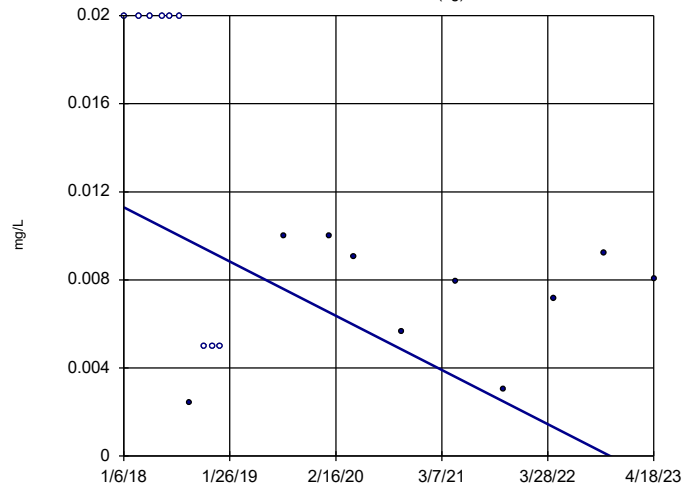


n = 17  
Slope = -0.1607  
units per year.  
Mann-Kendall  
statistic = -32  
critical = -49  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-6A (bg)

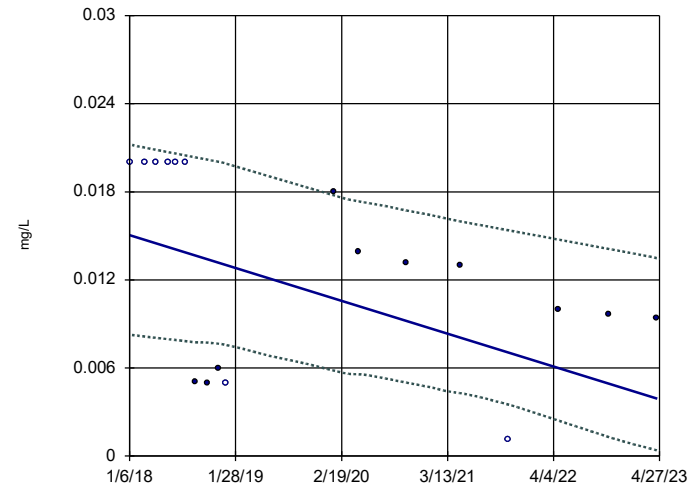


n = 19  
Slope = -0.002329  
units per year.  
Mann-Kendall  
statistic = -56  
critical = -58  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A



n = 18  
Slope = -0.002108  
units per year.  
Mann-Kendall  
statistic = -71  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 11:35 AM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM



# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A
10/19/2018	1.414
6/18/2019	4.34
10/29/2019	<1.311
11/29/2019	17.67
12/18/2019	4.65
1/22/2020	8.85
4/23/2020	3.36
7/22/2020	2.41
10/14/2020	2.87
4/27/2021	3.12
10/18/2021	<0.95
4/19/2022	2.1
10/18/2022	1.77
4/18/2023	2.18

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A
10/19/2018	1.308
11/27/2018	<0.832
12/24/2018	3.46
1/22/2019	<1.106
4/22/2019	2.141
6/18/2019	5.588
10/29/2019	<2.885
11/29/2019	<6.223
12/18/2019	<2.648
1/22/2020	2.191
4/23/2020	1.2
10/13/2020	0.86
4/27/2021	1.04
10/18/2021	1.12
4/18/2022	<0.92
10/18/2022	2.88
4/17/2023	0.575

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)
1/6/2018	<0.02
3/3/2018	<0.02
4/14/2018	<0.02
5/26/2018	<0.02
6/23/2018	<0.02
7/29/2018	<0.02
9/2/2018	0.00244
10/24/2018	<0.005
11/27/2018	<0.005
12/24/2018	<0.005
8/13/2019	0.01
1/22/2020	0.01
4/23/2020	0.00905
10/14/2020	0.00564
4/27/2021	0.00796
10/18/2021	0.00305
4/19/2022	0.00718
10/19/2022	0.00921
4/18/2023	0.00805

# Sen's Slope Estimator

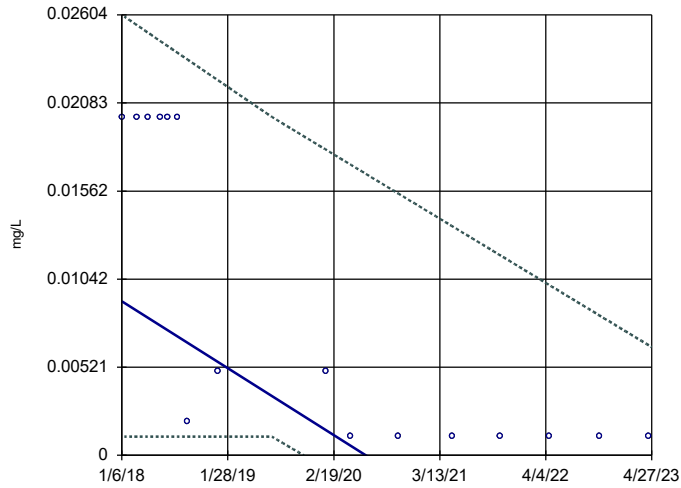
Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.02	0.008264	0.02124
3/3/2018	<0.02	0.008144	0.02101
4/14/2018	<0.02	0.008054	0.02086
5/26/2018	<0.02	0.007964	0.02071
6/23/2018	<0.02	0.007904	0.02061
7/29/2018	<0.02	0.007827	0.02048
9/2/2018	0.00509	0.007754	0.02035
10/19/2018	0.005	0.007728	0.02019
11/27/2018	0.006	0.007655	0.02005
12/24/2018	<0.005	0.007571	0.01992
1/22/2020	0.018	0.005825	0.01776
4/23/2020	0.0139	0.005573	0.01735
10/14/2020	0.0132	0.005005	0.01672
4/27/2021	0.013	0.004288	0.01599
10/20/2021	<0.0011	0.003514	0.01538
4/21/2022	0.01	0.002425	0.01475
10/24/2022	0.00964	0.001292	0.01411
4/18/2023	0.00943	0.0003772	0.01348

### Sen's Slope and 95% Confidence Band

MW-9A

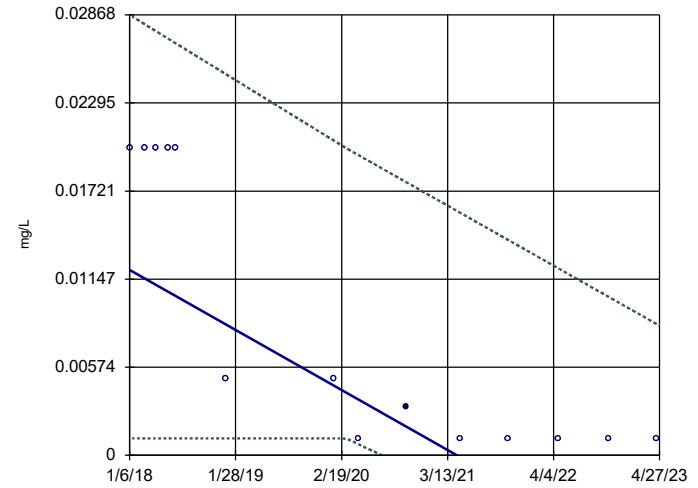


Constituent: Selenium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-10A

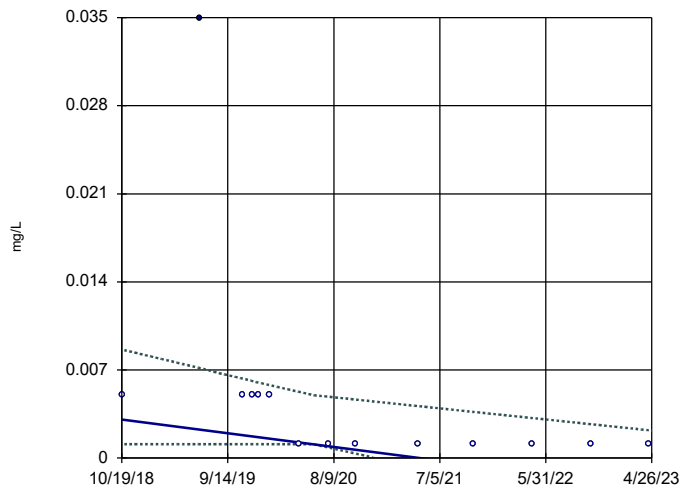


Constituent: Selenium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-11A

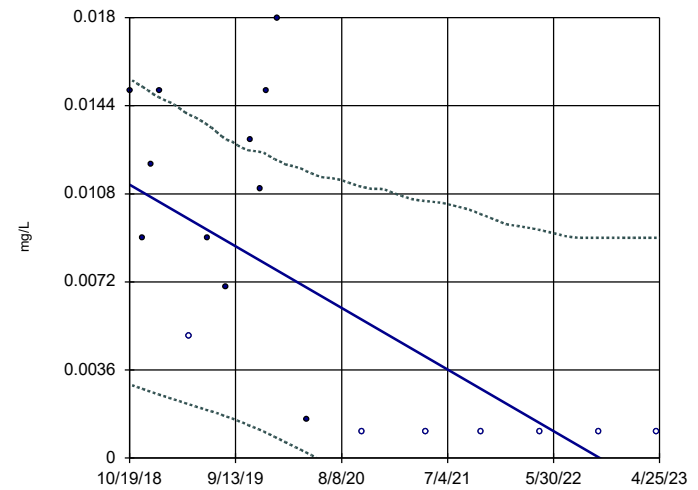


Constituent: Selenium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-12A



Constituent: Selenium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-9A	LCL	UCL
1/6/2018	<0.02	0.0011	0.02604
3/3/2018	<0.02	0.0011	0.02542
4/14/2018	<0.02	0.0011	0.02496
5/26/2018	<0.02	0.0011	0.0245
6/23/2018	<0.02	0.0011	0.02419
7/29/2018	<0.02	0.0011	0.02379
9/2/2018	<0.002	0.0011	0.02341
12/24/2018	<0.005	0.0011	0.02217
1/22/2020	<0.005	-0.0008327	0.01807
4/23/2020	<0.0011	-0.00177	0.01717
10/14/2020	<0.0011	-0.003653	0.01546
4/27/2021	<0.0011	-0.005883	0.01355
10/19/2021	<0.0011	-0.008036	0.01183
4/19/2022	<0.0011	-0.01025	0.01005
10/19/2022	<0.0011	-0.01262	0.008256
4/18/2023	<0.0011	-0.01524	0.006482

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A	LCL	UCL
1/6/2018	<0.02	0.0011	0.02868
3/3/2018	<0.02	0.0011	0.02807
4/14/2018	<0.02	0.0011	0.02761
5/26/2018	<0.02	0.0011	0.02715
6/23/2018	<0.02	0.0011	0.02684
12/24/2018	<0.005	0.0011	0.02482
1/22/2020	<0.005	0.0011	0.0205
4/23/2020	<0.0011	0.0007108	0.01954
10/14/2020	0.00314	-0.0007612	0.01778
4/27/2021	<0.0011	-0.00248	0.01581
10/20/2021	<0.0011	-0.004867	0.01403
4/20/2022	<0.0011	-0.006948	0.0122
10/24/2022	<0.0011	-0.00912	0.01031
4/18/2023	<0.0011	-0.01118	0.008531

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0011	0.008627
6/18/2019	0.035	0.0011	0.007157
10/29/2019	<0.005	0.0011	0.00632
11/29/2019	<0.005	0.0011	0.006136
12/18/2019	<0.005	0.0011	0.006001
1/22/2020	<0.005	0.0011	0.005797
4/23/2020	<0.0011	0.0011	0.005262
7/22/2020	<0.0011	0.0008453	0.00488
10/14/2020	<0.0011	0.0003698	0.004655
4/27/2021	<0.0011	-0.0008899	0.004135
10/18/2021	<0.0011	-0.001959	0.00367
4/19/2022	<0.0011	-0.003506	0.003181
10/18/2022	<0.0011	-0.004997	0.002695
4/18/2023	<0.0011	-0.006447	0.002209



# Sen's Slope Estimator

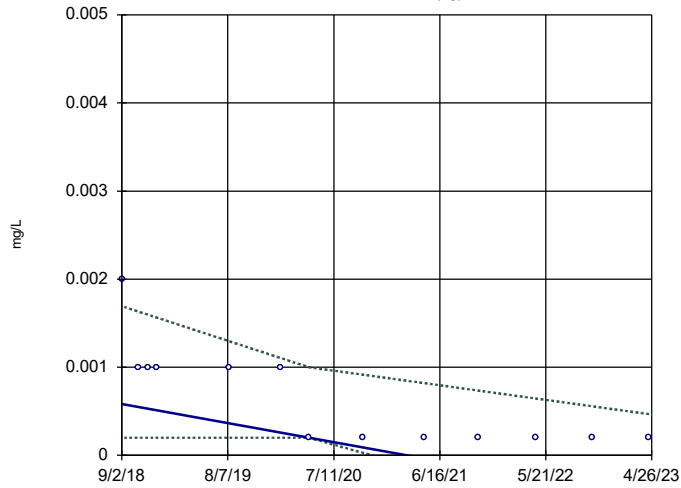
Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	0.015	0.003013	0.01552
11/27/2018	0.009	0.002833	0.01519
12/24/2018	0.012	0.002708	0.01495
1/22/2019	0.015	0.00258	0.01471
4/22/2019	<0.005	0.002198	0.01403
6/18/2019	0.009	0.001958	0.01363
8/13/2019	0.007	0.001709	0.01303
10/29/2019	0.013	0.001319	0.01257
11/29/2019	0.011	0.001149	0.01252
12/18/2019	0.015	0.001036	0.01242
1/22/2020	0.018	0.0008105	0.01218
4/23/2020	0.00158 (J)	0.0002114	0.01172
10/13/2020	<0.0011	-0.001195	0.01109
4/27/2021	<0.0011	-0.002646	0.01051
10/18/2021	<0.0011	-0.003977	0.009956
4/18/2022	<0.0011	-0.0054	0.00932
10/18/2022	<0.0011	-0.006934	0.009
4/17/2023	<0.0011	-0.008487	0.009

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



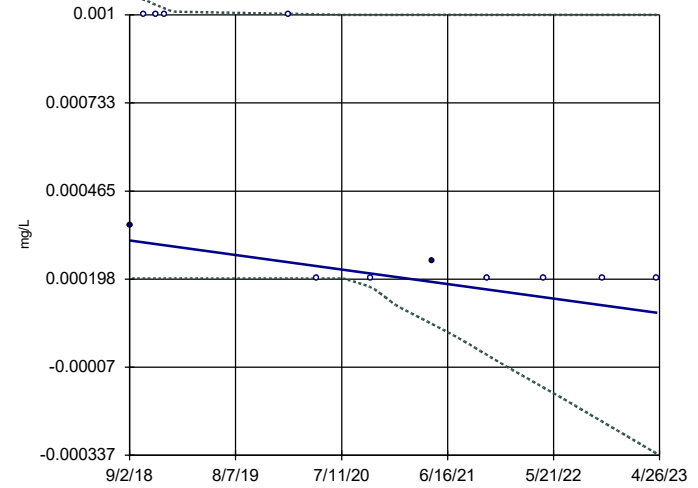
n = 13  
Slope = -0.0002325  
units per year.  
Mann-Kendall  
statistic = -47  
critical = -34  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-8A



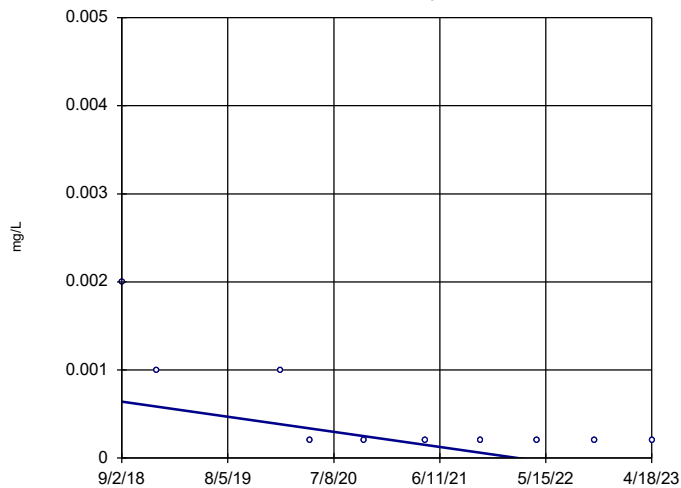
n = 12  
Slope = -0.00004753  
units per year.  
Mann-Kendall  
statistic = -33  
critical = -30  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-9A



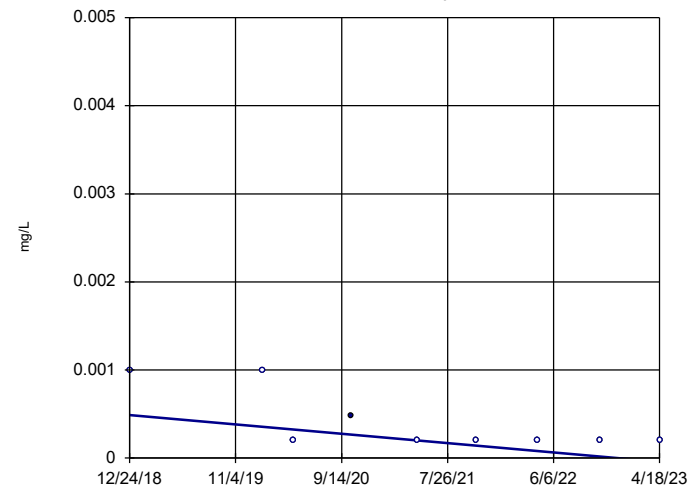
n = 10  
Slope = -0.0001853  
units per year.  
Mann-Kendall  
statistic = -23  
critical = -23  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope Estimator

MW-10A



n = 9  
Slope = -0.0001226  
units per year.  
Mann-Kendall  
statistic = -18  
critical = -20  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.02 (o)		
3/3/2018	<0.02 (o)		
4/14/2018	<0.02 (o)		
5/26/2018	<0.02 (o)		
6/23/2018	<0.02 (o)		
7/29/2018	<0.02 (o)		
9/2/2018	<0.002	0.0002	0.001694
10/24/2018	<0.001	0.0002	0.001633
11/27/2018	<0.001	0.0002	0.001594
12/24/2018	<0.001	0.0002	0.001563
8/13/2019	<0.001	0.0002	0.001294
1/22/2020	<0.001	0.0002	0.001107
4/23/2020	<0.0002	0.0002	0.001
10/14/2020	<0.0002	0.00002759	0.000915
4/27/2021	<0.0002	-0.0001656	0.0008197
10/18/2021	<0.0002	-0.000338	0.0007346
4/19/2022	<0.0002	-0.0005194	0.0006452
10/19/2022	<0.0002	-0.0007007	0.0005558
4/18/2023	<0.0002	-0.0008801	0.0004673

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	LCL	UCL
1/6/2018	<0.02 (o)		
3/3/2018	<0.02 (o)		
4/14/2018	<0.02 (o)		
5/26/2018	<0.02 (o)		
6/23/2018	<0.02 (o)		
7/29/2018	<0.02 (o)		
9/2/2018	0.00036	0.0002	0.001057
10/19/2018	<0.001	0.0002	0.001046
11/27/2018	<0.001	0.0002	0.00103
12/24/2018	<0.001	0.0002	0.001019
1/22/2020	<0.001	0.0002	0.001003
4/23/2020	<0.0002	0.0002	0.001002
10/14/2020	<0.0002	0.0001725	0.001
4/27/2021	0.000252 (J)	0.00006177	0.001
10/20/2021	<0.0002	-0.000032	0.001
4/21/2022	<0.0002	-0.0001322	0.001
10/24/2022	<0.0002	-0.0002345	0.001
4/18/2023	<0.0002	-0.0003326	0.001

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

## MW-9A

1/6/2018	<0.02 (o)
3/3/2018	<0.02 (o)
4/14/2018	<0.02 (o)
5/26/2018	<0.02 (o)
6/23/2018	<0.02 (o)
7/29/2018	<0.02 (o)
9/2/2018	<0.002
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	<0.0002
4/27/2021	<0.0002
10/19/2021	<0.0002
4/19/2022	<0.0002
10/19/2022	<0.0002
4/18/2023	<0.0002

# Sen's Slope Estimator

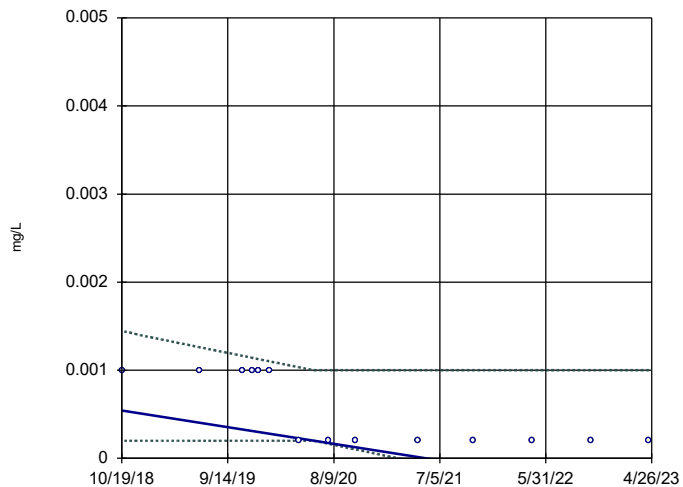
Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-10A
1/6/2018	<0.02 (o)
3/3/2018	<0.02 (o)
4/14/2018	<0.02 (o)
5/26/2018	<0.02 (o)
6/23/2018	<0.02 (o)
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	0.000475 (J)
4/27/2021	<0.0002
10/20/2021	<0.0002
4/20/2022	<0.0002
10/24/2022	<0.0002
4/18/2023	<0.0002

### Sen's Slope and 95% Confidence Band

MW-11A



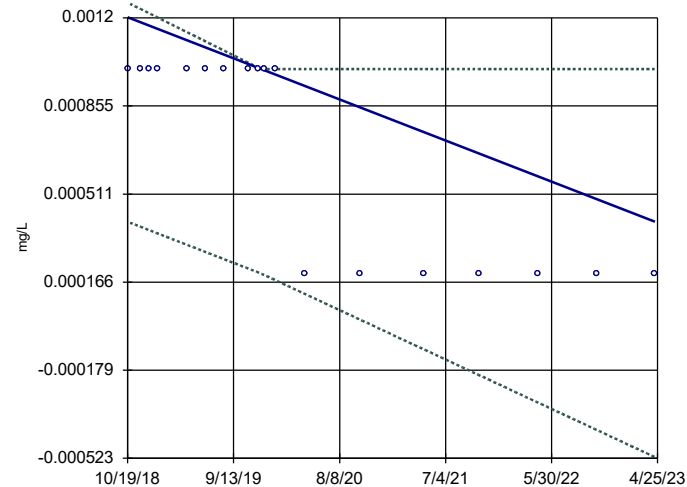
n = 14  
Slope = -0.0002086  
units per year.  
Mann-Kendall  
statistic = -48  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Sen's Slope and 95% Confidence Band

MW-12A



n = 18  
Slope = -0.0001779  
units per year.  
Mann-Kendall  
statistic = -77  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 11:36 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-11A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001447
6/18/2019	<0.001	0.0002	0.001262
10/29/2019	<0.001	0.0002	0.001164
11/29/2019	<0.001	0.0002	0.001141
12/18/2019	<0.001	0.0002	0.001127
1/22/2020	<0.001	0.0002	0.001101
4/23/2020	<0.0002	0.0002	0.001033
7/22/2020	<0.0002	0.0001658	0.001
10/14/2020	<0.0002	0.0001021	0.001
4/27/2021	<0.0002	-0.00004592	0.001
10/18/2021	<0.0002	-0.000178	0.001
4/19/2022	<0.0002	-0.0003169	0.001
10/18/2022	<0.0002	-0.000455	0.001
4/18/2023	<0.0002	-0.0006001	0.001



# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:43 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-12A	LCL	UCL
10/19/2018	<0.001	0.0004023	0.00126
11/27/2018	<0.001	0.0003833	0.001236
12/24/2018	<0.001	0.0003701	0.001219
1/22/2019	<0.001	0.000356	0.0012
4/22/2019	<0.001	0.0003121	0.001144
6/18/2019	<0.001	0.0002843	0.001108
8/13/2019	<0.001	0.000257	0.001073
10/29/2019	<0.001	0.0002195	0.001025
11/29/2019	<0.001	0.0002044	0.001006
12/18/2019	<0.001	0.0001941	0.001
1/22/2020	<0.001	0.0001736	0.001
4/23/2020	<0.0002	0.0001197	0.001
10/13/2020	<0.0002	0.00001832	0.001
4/27/2021	<0.0002	-0.00009656	0.001
10/18/2021	<0.0002	-0.0001985	0.001
4/18/2022	<0.0002	-0.0003052	0.001
10/18/2022	<0.0002	-0.0004125	0.001
4/17/2023	<0.0002	-0.0005185	0.001

# Confidence Interval (First 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 230417 EVANS AND ASSOCIATES AM    Printed 1/23/2024, 11:54 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-8A	0.005	0.0004	0.006	No	12	83.33	No	0.01	NP (NDs)
Antimony (mg/L)	MW-9A	0.005	0.0004	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-10A	0.005	0.0004	0.006	No	9	33.33	No	0.002	NP (normality)
Antimony (mg/L)	MW-11A	0.005	0.0004	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	MW-12A	0.005	0.0004	0.006	No	18	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-8A	0.002924	0.001156	0.01875	No	18	50	x^(1/3)	0.01	Param.
Arsenic (mg/L)	MW-9A	0.01	0.00174	0.01875	No	16	43.75	No	0.01	NP (normality)
Arsenic (mg/L)	MW-10A	0.011	0.0064	0.01875	No	14	42.86	No	0.01	NP (normality)
Arsenic (mg/L)	MW-11A	0.003745	0.001181	0.01875	No	14	28.57	ln(x)	0.01	Param.
Arsenic (mg/L)	MW-12A	0.006841	0.002472	0.01875	No	18	38.89	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-8A	0.354	0.263	2	No	18	0	No	0.01	NP (normality)
Barium (mg/L)	MW-9A	0.149	0.0574	2	No	16	0	No	0.01	NP (normality)
Barium (mg/L)	MW-10A	0.2142	0.04636	2	No	14	0	ln(x)	0.01	Param.
Barium (mg/L)	MW-11A	0.5358	0.3389	2	No	14	0	No	0.01	Param.
Barium (mg/L)	MW-12A	0.05205	0.02964	2	No	18	0	ln(x)	0.01	Param.
Beryllium (mg/L)	MW-8A	0.001	0.0002	0.004	No	12	75	No	0.01	NP (normality)
Beryllium (mg/L)	MW-9A	0.001	0.0002	0.004	No	10	60	No	0.011	NP (normality)
Beryllium (mg/L)	MW-10A	0.00368	0.0002	0.004	No	9	77.78	No	0.002	NP (NDs)
Beryllium (mg/L)	MW-11A	0.001	0.0002	0.004	No	14	71.43	No	0.01	NP (normality)
Beryllium (mg/L)	MW-12A	0.0014	0.000258	0.004	No	18	55.56	No	0.01	NP (normality)
Cadmium (mg/L)	MW-8A	0.00289	0.0002	0.005	No	12	91.67	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-9A	0.001	0.0002	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-10A	0.001	0.0002	0.005	No	9	66.67	No	0.002	NP (normality)
Cadmium (mg/L)	MW-11A	0.001	0.0002	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-12A	0.001	0.0002	0.005	No	18	88.89	No	0.01	NP (NDs)
Chromium (mg/L)	MW-8A	0.0131	0.00783	0.1	No	18	38.89	No	0.01	NP (normality)
Chromium (mg/L)	MW-9A	0.01	0.00126	0.1	No	16	50	No	0.01	NP (normality)
Chromium (mg/L)	MW-10A	0.006319	0.001191	0.1	No	14	42.86	x^(1/3)	0.01	Param.
Chromium (mg/L)	MW-11A	0.01	0.00125	0.1	No	14	50	No	0.01	NP (normality)
Chromium (mg/L)	MW-12A	0.01	0.00198	0.1	No	18	66.67	No	0.01	NP (normality)
Cobalt (mg/L)	MW-8A	0.0117	0.00142	0.12	No	18	61.11	No	0.01	NP (normality)
Cobalt (mg/L)	MW-9A	0.01	0.000419	0.12	No	16	62.5	No	0.01	NP (normality)
Cobalt (mg/L)	MW-10A	0.01649	0.005193	0.12	No	14	28.57	sqrt(x)	0.01	Param.
Cobalt (mg/L)	MW-11A	0.01	0.000225	0.12	No	14	50	No	0.01	NP (normality)
Cobalt (mg/L)	MW-12A	0.0104	0.00567	0.12	No	18	55.56	No	0.01	NP (normality)
Fluoride (mg/L)	MW-8A	0.363	0.29	4	No	26	0	No	0.01	NP (normality)
Fluoride (mg/L)	MW-9A	0.7826	0.7006	4	No	24	0	No	0.01	Param.
Fluoride (mg/L)	MW-10A	0.5783	0.4191	4	No	22	18.18	No	0.01	Param.
Fluoride (mg/L)	MW-11A	0.3134	0.2077	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	MW-12A	0.7416	0.5734	4	No	18	0	No	0.01	Param.
Lead (mg/L)	MW-8A	0.005565	0.001273	0.2741	No	18	61.11	sqrt(x)	0.01	Param.
Lead (mg/L)	MW-9A	0.01	0.000899	0.2741	No	16	50	No	0.01	NP (normality)
Lead (mg/L)	MW-10A	0.01152	0.002549	0.2741	No	14	28.57	ln(x)	0.01	Param.
Lead (mg/L)	MW-11A	0.005	0.0006	0.2741	No	14	50	No	0.01	NP (normality)
Lead (mg/L)	MW-12A	0.009628	0.0032	0.2741	No	18	27.78	No	0.01	Param.
Lithium (mg/L)	MW-8A	0.05	0.00993	0.06675	No	18	55.56	No	0.01	NP (normality)
Lithium (mg/L)	MW-9A	0.05	0.0195	0.06675	No	16	50	No	0.01	NP (normality)
Lithium (mg/L)	MW-10A	0.05	0.00346	0.06675	No	14	50	No	0.01	NP (normality)
Lithium (mg/L)	MW-11A	0.04	0.00917	0.06675	No	14	42.86	No	0.01	NP (normality)
Lithium (mg/L)	MW-12A	0.04	0.00444	0.06675	No	18	55.56	No	0.01	NP (normality)

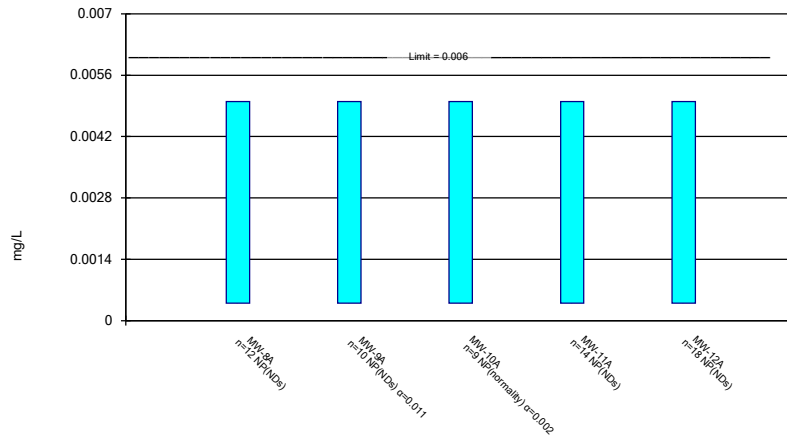
# Confidence Interval (First 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 230417 EVANS AND ASSOCIATES AM    Printed 1/23/2024, 11:54 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	MW-8A	0.0002	0.00003	0.002	No	18	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-9A	0.0002	0.00003	0.002	No	16	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-10A	0.0002	0.00003	0.002	No	14	92.86	No	0.01	NP (NDs)
Mercury (mg/L)	MW-11A	0.00005	0.00003	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-12A	0.000061	0.00003	0.002	No	18	77.78	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-8A	0.01	0.000954	0.1	No	18	66.67	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-9A	0.01018	0.005567	0.1	No	16	6.25	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	MW-10A	0.01122	0.002875	0.1	No	14	50	x^(1/3)	0.01	Param.
Molybdenum (mg/L)	MW-11A	0.005	0.0006	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-12A	0.08125	0.0279	0.1	No	18	0	sqrt(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-8A	1.393	0.5911	5.888	No	16	37.5	ln(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-9A	1.293	0.4461	5.888	No	15	33.33	sqrt(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-10A	1.792	0.77	5.888	No	12	25	No	0.01	NP (normality)
Ra 226 and 228 (pCi/L)	MW-11A	5.604	1.394	5.888	No	14	14.29	x^(1/3)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-12A	2.229	0.872	5.888	No	17	35.29	sqrt(x)	0.01	Param.
Selenium (mg/L)	MW-8A	0.02	0.00509	0.05	No	18	44.44	No	0.01	NP (normality)
Selenium (mg/L)	MW-9A	0.02	0.0011	0.05	No	16	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-10A	0.02	0.0011	0.05	No	14	92.86	No	0.01	NP (NDs)
Selenium (mg/L)	MW-11A	0.005	0.0011	0.05	No	14	92.86	No	0.01	NP (NDs)
Selenium (mg/L)	MW-12A	0.013	0.0011	0.05	No	18	38.89	No	0.01	NP (normality)
Thallium (mg/L)	MW-8A	0.001	0.0002	0.002	No	12	83.33	No	0.01	NP (NDs)
Thallium (mg/L)	MW-9A	0.001	0.0002	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	MW-10A	0.001	0.0002	0.002	No	9	88.89	No	0.002	NP (NDs)
Thallium (mg/L)	MW-11A	0.001	0.0002	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-12A	0.001	0.0002	0.002	No	18	100	No	0.01	NP (NDs)

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

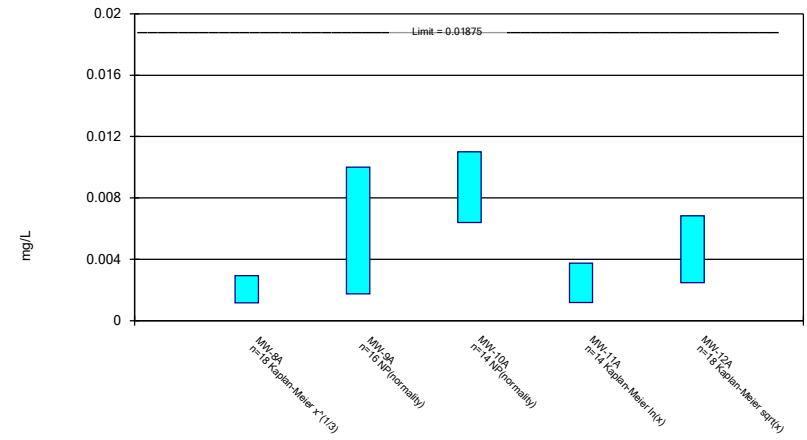


Constituent: Antimony Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### 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.

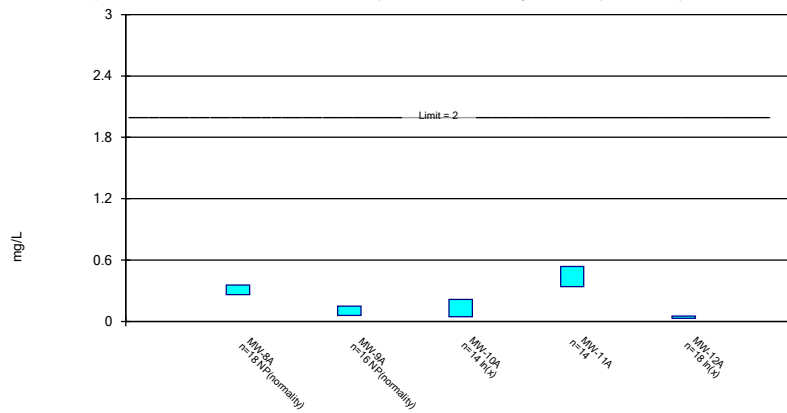


Constituent: Arsenic Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### 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.

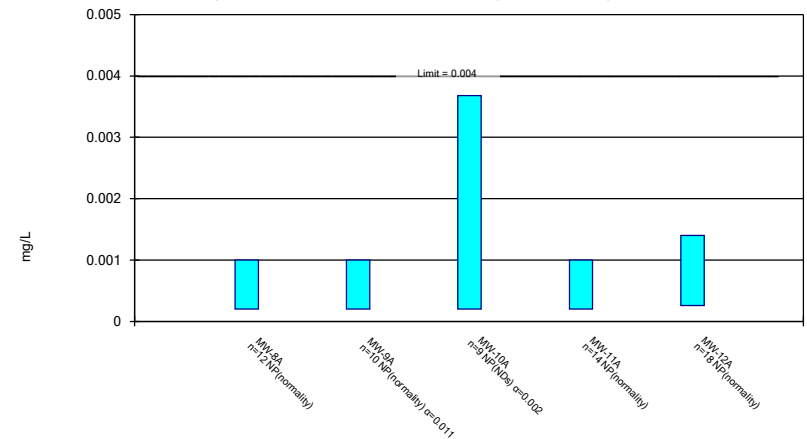


Constituent: Barium Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
3/3/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
4/14/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
5/26/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
6/23/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
7/29/2018	<0.01 (o)	<0.01 (o)			
9/2/2018	0.00108	<0.001			
10/19/2018	<0.005			<0.005	<0.005
11/27/2018	<0.005				<0.005
12/24/2018	<0.005	<0.005	<0.005		<0.005
1/22/2019					<0.0005
4/22/2019					<0.005
6/18/2019				<0.005	<0.005
8/13/2019					<0.005
10/29/2019				<0.005	<0.005
11/29/2019				<0.005	<0.005
12/18/2019				<0.005	<0.005
1/22/2020	<0.005	<0.005	<0.005	<0.005	<0.005
4/23/2020	<0.0004	<0.0004	0.000655 (J)	<0.0004	<0.0004
7/22/2020				0.000484 (J)	
10/13/2020					<0.0004
10/14/2020	<0.0004	<0.0004	0.000632 (J)	<0.0004	
4/27/2021	0.000975 (J)	<0.0004	<0.0004	<0.0004	<0.0004
10/18/2021				<0.0004	<0.0004
10/19/2021		<0.0004			
10/20/2021	<0.0004		0.000723 (J)		
4/18/2022					<0.0004
4/19/2022		<0.0004		<0.0004	
4/20/2022			0.000803 (J)		
4/21/2022	<0.0004				
10/18/2022				<0.0004	<0.0004
10/19/2022		<0.0004			
10/24/2022	<0.0004		0.000431 (J)		
4/17/2023					<0.0004
4/18/2023	<0.0004	<0.0004	0.000943 (J)	<0.0004	
Mean	0.002038	0.00138	0.001621	0.002377	0.002961
Std. Dev.	0.0022	0.001917	0.001923	0.002357	0.002346
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0004	0.0004	0.0004	0.0004	0.0004

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	<0.01		
5/26/2018	<0.01	<0.01	<0.01		
6/23/2018	<0.01	<0.01	<0.01		
7/29/2018	0.0133	<0.01			
9/2/2018	0.00164	0.00158			
10/19/2018	<0.005			<0.005	<0.005
11/27/2018	<0.005				<0.005
12/24/2018	<0.005	<0.005	<0.005		<0.005
1/22/2019					0.009
4/22/2019					<0.005
6/18/2019				<0.005	<0.005
8/13/2019					0.007
10/29/2019				0.016	0.01
11/29/2019				<0.005	<0.005
12/18/2019				<0.005	<0.005
1/22/2020	<0.005	0.013	0.011	0.011	0.013
4/23/2020	0.000833 (J)	0.00174 (J)	0.00957	0.00142 (J)	0.00135 (J)
7/22/2020				0.00303	
10/13/2020					0.00798
10/14/2020	0.00276	0.00248	0.0505	0.00136 (J)	
4/27/2021	0.00288	0.00185 (J)	0.00211	0.00184 (J)	0.00143 (J)
10/18/2021				0.00117 (J)	0.0141
10/19/2021		0.00225			
10/20/2021	0.00104 (J)		0.00734		
4/18/2022					0.00439
4/19/2022		0.00151 (J)		0.00206	
4/20/2022			0.0064		
4/21/2022	0.0017 (J)				
10/18/2022				0.00114 (J)	0.00512
10/19/2022		0.00203			
10/24/2022	0.00148 (J)		0.00708		
4/17/2023					0.00232
4/18/2023	0.00131 (J)	0.00184 (J)	0.00976	0.00111 (J)	
Mean	0.005386	0.00583	0.01134	0.004295	0.006149
Std. Dev.	0.004073	0.004321	0.01154	0.004326	0.003519
Upper Lim.	0.002924	0.01	0.011	0.003745	0.006841
Lower Lim.	0.001156	0.00174	0.0064	0.001181	0.002472

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	0.298	0.0574	0.0588		
3/3/2018	0.272	0.0591	0.109		
4/14/2018	0.29	0.0602	0.732		
5/26/2018	0.334	0.149	0.174		
6/23/2018	0.237	0.0597	0.148		
7/29/2018	0.73	0.161			
9/2/2018	0.274	0.0712			
10/19/2018	0.265			0.176	0.041
11/27/2018	0.255				0.039
12/24/2018	0.265	0.05	0.022		0.023
1/22/2019					0.076
4/22/2019					0.051
6/18/2019				0.338	0.026
8/13/2019					0.045
10/29/2019				0.765	0.046
11/29/2019				0.515	0.051
12/18/2019				0.481	0.033
1/22/2020	0.298	0.321	0.045	0.564	0.036
4/23/2020	0.211	0.061	0.0861	0.371	0.0241
7/22/2020				0.448	
10/13/2020					0.067
10/14/2020	0.357	0.121	1.07	0.332	
4/27/2021	0.348	0.0711	0.0735	0.541	0.0256
10/18/2021				0.389	0.127
10/19/2021		0.0728			
10/20/2021	0.412		0.0459		
4/18/2022					0.034
4/19/2022		0.113		0.468	
4/20/2022			0.0439		
4/21/2022	0.354				
10/18/2022				0.4	0.0264
10/19/2022		0.0925			
10/24/2022	0.263		0.0498		
4/17/2023					0.0226
4/18/2023	0.289	0.0547	0.117	0.335	
Mean	0.3196	0.09842	0.1982	0.4374	0.04409
Std. Dev.	0.1137	0.06868	0.3081	0.139	0.02559
Upper Lim.	0.354	0.149	0.2142	0.5358	0.05205
Lower Lim.	0.263	0.0574	0.04636	0.3389	0.02964

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 11:54 AM

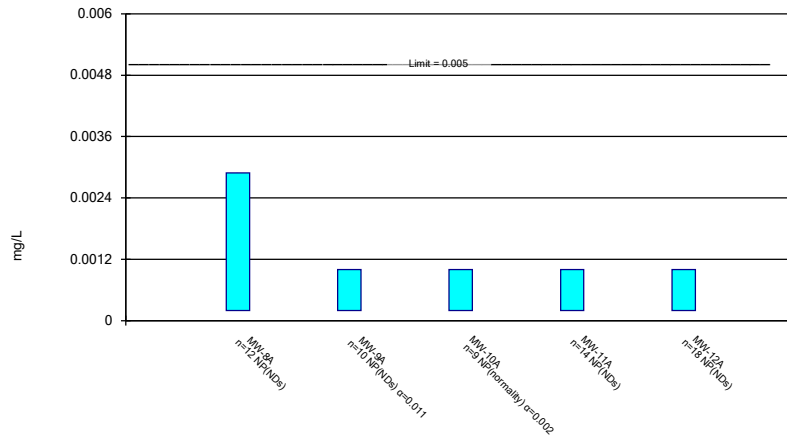
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
3/3/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
4/14/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
5/26/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
6/23/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
7/29/2018	<0.01 (o)	<0.01 (o)			
9/2/2018	<0.001	<0.001			
10/19/2018	<0.001			<0.001	<0.001
11/27/2018	<0.001				<0.001
12/24/2018	<0.001	<0.001	<0.001		<0.001
1/22/2019					<0.001
4/22/2019					<0.001
6/18/2019				<0.001	<0.001
8/13/2019					0.002
10/29/2019				<0.001	0.002
11/29/2019				<0.001	<0.001
12/18/2019				<0.001	0.002
1/22/2020	<0.001	0.0016	<0.001	0.0011	0.0014
4/23/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
7/22/2020				0.00039 (J)	
10/13/2020					0.000258 (J)
10/14/2020	0.000585 (J)	0.000391 (J)	0.00368	<0.0002	
4/27/2021	0.000347 (J)	<0.0002	<0.0002	0.000502 (J)	<0.0002
10/18/2021				<0.0002	0.00061 (J)
10/19/2021		<0.0002			
10/20/2021	<0.0002		<0.0002		
4/18/2022					0.000482 (J)
4/19/2022		0.000369 (J)		0.000322 (J)	
4/20/2022			<0.0002		
4/21/2022	0.000273 (J)				
10/18/2022				<0.0002	0.000343 (J)
10/19/2022		0.000205 (J)			
10/24/2022	<0.0002		<0.0002		
4/17/2023					<0.0002
4/18/2023	<0.0002	<0.0002	0.000252 (J)	<0.0002	
Mean	0.0005838	0.0005365	0.0007702	0.0005939	0.0009274
Std. Dev.	0.0003823	0.0004913	0.001144	0.0003903	0.000613
Upper Lim.	0.001	0.001	0.00368	0.001	0.0014
Lower Lim.	0.0002	0.0002	0.0002	0.0002	0.000258



### Non-Parametric Confidence Interval

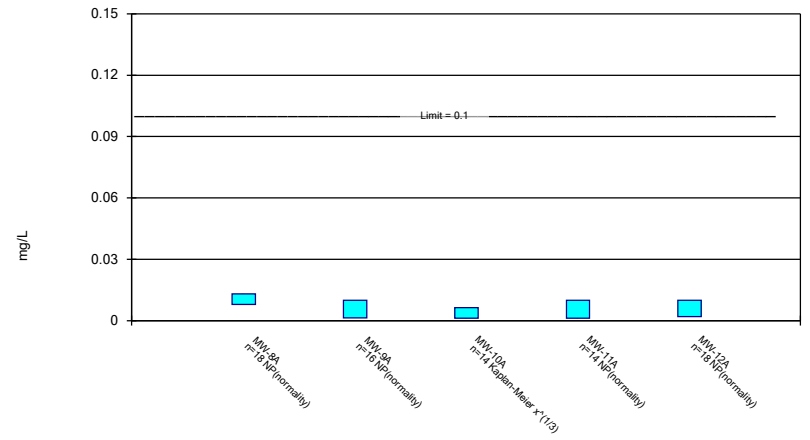
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Cadmium Analysis Run 1/23/2024 11:50 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Parametric and Non-Parametric (NP) Confidence Interval

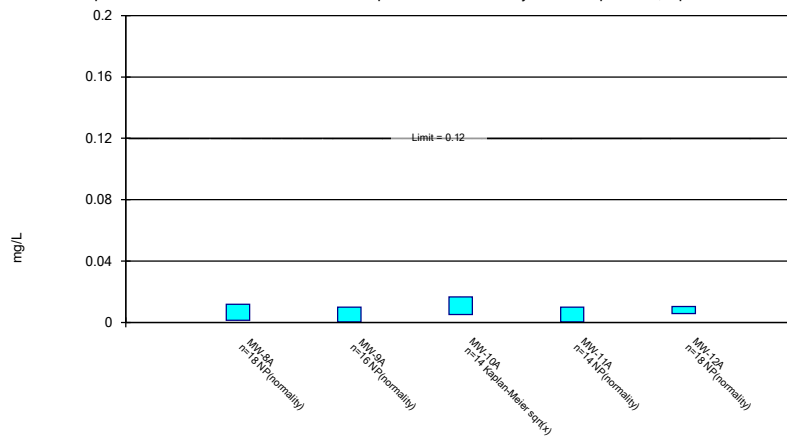
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 1/23/2024 11:50 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Parametric and Non-Parametric (NP) Confidence Interval

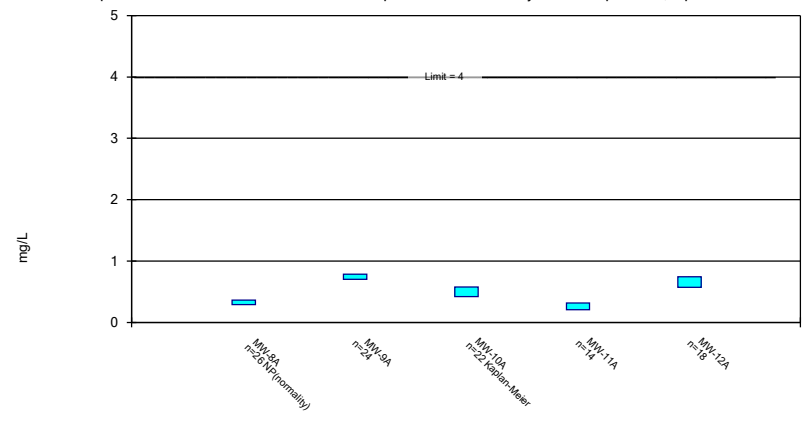
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/23/2024 11:50 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### 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 1/23/2024 11:50 AM  
 Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
3/3/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
4/14/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
5/26/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
6/23/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
7/29/2018	<0.01 (o)	<0.01 (o)			
9/2/2018	0.00289	<0.001			
10/19/2018	<0.001			<0.001	<0.001
11/27/2018	<0.001				<0.001
12/24/2018	<0.001	<0.001	<0.001		<0.001
1/22/2019					<0.001
4/22/2019					<0.001
6/18/2019				<0.001	<0.001
8/13/2019					<0.001
10/29/2019				<0.001	<0.001
11/29/2019				<0.001	<0.001
12/18/2019				<0.001	<0.001
1/22/2020	<0.001	<0.001	<0.001	<0.001	<0.001
4/23/2020	<0.0002	<0.0002	0.00023 (J)	<0.0002	<0.0002
7/22/2020				<0.0002	
10/13/2020					<0.0002
10/14/2020	<0.0002	<0.0002	0.0009 (J)	<0.0002	
4/27/2021	<0.0002	<0.0002	0.000272 (J)	<0.0002	<0.0002
10/18/2021				<0.0002	0.000234 (J)
10/19/2021		<0.0002			
10/20/2021	<0.0002		<0.0002		
4/18/2022					<0.0002
4/19/2022		<0.0002		<0.0002	
4/20/2022			<0.0002		
4/21/2022	<0.0002				
10/18/2022				<0.0002	0.000205 (J)
10/19/2022		<0.0002			
10/24/2022	<0.0002		<0.0002		
4/17/2023					<0.0002
4/18/2023	<0.0002	<0.0002	<0.0002	<0.0002	
Mean	0.0006908	0.00044	0.0004669	0.0005429	0.0006911
Std. Dev.	0.0007923	0.0003864	0.0003767	0.0004108	0.0003986
Upper Lim.	0.00289	0.001	0.001	0.001	0.001
Lower Lim.	0.0002	0.0002	0.0002	0.0002	0.0002

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	0.0111	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	0.0125		
5/26/2018	0.0167	0.011	<0.01		
6/23/2018	<0.01	<0.01	<0.01		
7/29/2018	0.0615	<0.01			
9/2/2018	0.00783	0.00195			
10/19/2018	<0.01			<0.01	<0.01
11/27/2018	<0.01				<0.01
12/24/2018	<0.01	<0.01	<0.01		<0.01
1/22/2019					<0.01
4/22/2019					<0.01
6/18/2019				<0.01	<0.01
8/13/2019					<0.01
10/29/2019				<0.01	<0.01
11/29/2019				<0.01	<0.01
12/18/2019				<0.01	<0.01
1/22/2020	<0.01	<0.01	<0.01	<0.01	<0.01
4/23/2020	0.00323 (J)	0.00126 (J)	0.00169 (J)	0.00236 (J)	<0.0004
7/22/2020				0.00644	
10/13/2020					0.00198 (J)
10/14/2020	0.0146	0.00507	0.0287	0.0019 (J)	
4/27/2021	0.0131	0.00196 (J)	0.00124 (J)	0.00306 (J)	0.00059 (J)
10/18/2021				0.00121 (J)	0.00447
10/19/2021		0.000462 (J)			
10/20/2021	0.00118 (J)		0.00104 (J)		
4/18/2022					0.00344 (J)
4/19/2022		0.00267 (J)		0.00416	
4/20/2022			0.00201 (J)		
4/21/2022	0.0111				
10/18/2022				0.00125 (J)	0.00238 (J)
10/19/2022		0.00208 (J)			
10/24/2022	0.00993		0.00223 (J)		
4/17/2023					0.000811 (J)
4/18/2023	0.00501	<0.0004	0.00443	<0.0004	
Mean	0.01252	0.006053	0.008131	0.00577	0.006893
Std. Dev.	0.01276	0.004332	0.007277	0.004061	0.004111
Upper Lim.	0.0131	0.01	0.006319	0.01	0.01
Lower Lim.	0.00783	0.00126	0.001191	0.00125	0.00198

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	0.0258		
5/26/2018	0.0117	0.01	0.0133		
6/23/2018	<0.01	<0.01	0.011		
7/29/2018	0.0524	<0.01			
9/2/2018	<0.01	<0.01			
10/19/2018	<0.01			<0.01	<0.01
11/27/2018	<0.01				<0.01
12/24/2018	<0.01	<0.01	<0.01		<0.01
1/22/2019					0.013
4/22/2019					<0.01
6/18/2019				<0.01	<0.01
8/13/2019					<0.01
10/29/2019				<0.01	<0.01
11/29/2019				<0.01	<0.01
12/18/2019				<0.01	<0.01
1/22/2020	<0.01	<0.01	<0.01	<0.01	<0.01
4/23/2020	<0.0002	0.000419 (J)	0.0209	0.000556 (J)	0.00326 (J)
7/22/2020				0.00218 (J)	
10/13/2020					0.00644
10/14/2020	0.00589	0.00217 (J)	0.0381	0.000225 (J)	
4/27/2021	0.00401 (J)	0.000489 (J)	0.00325 (J)	0.00097 (J)	0.00387 (J)
10/18/2021				<0.0002	0.0104
10/19/2021		<0.0002			
10/20/2021	<0.0002		0.00449 (J)		
4/18/2022					0.00567
4/19/2022		0.00139 (J)		0.00168 (J)	
4/20/2022			0.00595		
4/21/2022	0.00277 (J)				
10/18/2022				0.00027 (J)	0.0108
10/19/2022		0.000853 (J)			
10/24/2022	0.000986 (J)		0.00788		
4/17/2023					0.00313 (J)
4/18/2023	0.00142 (J)	<0.0002	0.0106	0.000209 (J)	
Mean	0.009421	0.005983	0.01295	0.004735	0.008698
Std. Dev.	0.0115	0.004727	0.009387	0.004765	0.002879
Upper Lim.	0.0117	0.01	0.01649	0.01	0.0104
Lower Lim.	0.00142	0.000419	0.005193	0.000225	0.00567

# Confidence Interval

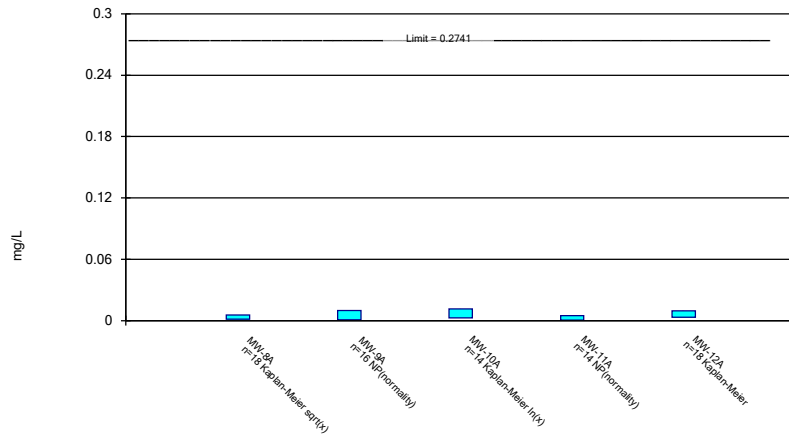
Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
2/26/2017	0.39	0.76	0.32		
7/29/2017	0.359	0.747	0.533		
9/10/2017	0.346	0.717	<1		
10/14/2017	0.31	0.679	0.5		
11/11/2017	0.322	0.703	0.394		
1/6/2018	0.344	0.729	0.522		
3/3/2018	0.363	0.784	<1		
4/14/2018	0.396	0.822	<1		
5/26/2018	0.333	0.702	<1		
6/23/2018	0.743	0.834	0.826		
7/29/2018	0.415	0.85			
9/2/2018	0.352	0.735			
10/19/2018	0.38			0.43	0.62
11/27/2018	0.26				0.78
12/24/2018					0.65
1/22/2019					0.85
1/29/2019	0.24				
1/30/2019		0.66	0.44		
4/22/2019	0.23	0.61	0.37		0.58
6/18/2019	0.3	0.66	0.43	0.36	0.67
8/13/2019					0.66
10/29/2019	0.35	0.73	0.5	0.27	0.74
11/29/2019				0.28	0.73
12/18/2019				0.27	0.67
1/22/2020	0.36	0.77	0.58	0.29	0.7
4/23/2020	0.122	0.763	0.296	0.219	0.56
7/22/2020				0.195	
10/13/2020					0.481 (J)
10/14/2020	0.29	0.574	0.285 (J)	0.113	
4/27/2021	0.415	0.834	0.48	0.219	0.811
10/18/2021				0.265	0.85
10/19/2021		0.842			
10/20/2021	0.26		0.64		
4/18/2022					0.33 (J)
4/19/2022		0.828		0.214	
4/20/2022			0.646		
4/21/2022	0.337				
10/18/2022				0.28	0.705
10/19/2022		0.846			
10/24/2022	0.266		0.611		
4/17/2023					0.448
4/18/2023	0.35	0.62	0.727	0.243	
Mean	0.3397	0.7416	0.5955	0.2606	0.6575
Std. Dev.	0.105	0.08038	0.2366	0.07464	0.139
Upper Lim.	0.363	0.7826	0.5783	0.3134	0.7416
Lower Lim.	0.29	0.7006	0.4191	0.2077	0.5734

### 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.

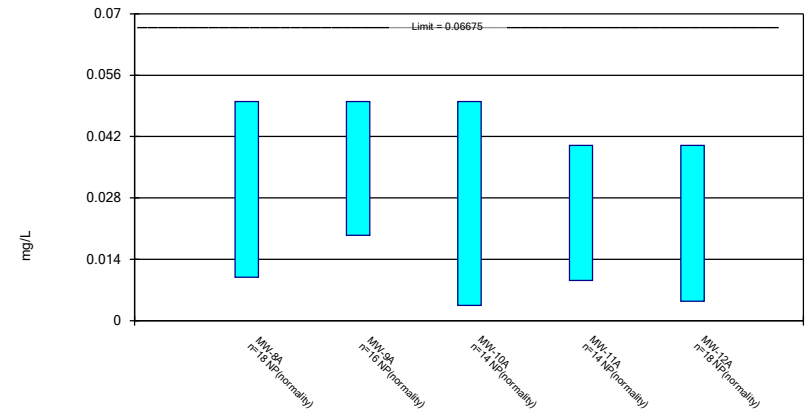


Constituent: Lead Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

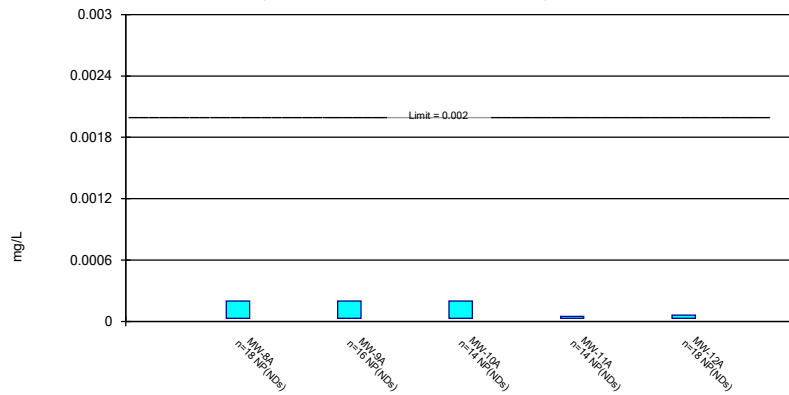


Constituent: Lithium Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

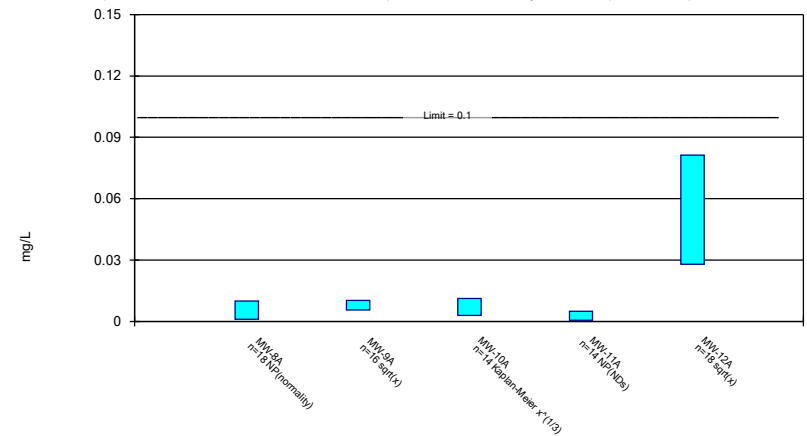


Constituent: Mercury Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### 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 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	0.0222		
5/26/2018	<0.01	0.0114	0.0128		
6/23/2018	<0.01	<0.01	<0.01		
7/29/2018	0.0254	<0.01			
9/2/2018	0.00232	0.00095			
10/19/2018	<0.005			<0.005	<0.005
11/27/2018	<0.005				<0.005
12/24/2018	<0.005	<0.005	<0.005		<0.005
1/22/2019					0.008
4/22/2019					0.005
6/18/2019				0.006	<0.005
8/13/2019					0.01
10/29/2019				0.008	0.021
11/29/2019				<0.005	0.008
12/18/2019				<0.005	0.012
1/22/2020	<0.005	0.01	0.011	0.005	0.013
4/23/2020	<0.0006	0.00135 (J)	0.00403	0.00107 (J)	<0.0006
7/22/2020				0.00444	
10/13/2020					0.00458
10/14/2020	0.00706	0.00263	0.0881	<0.0006	
4/27/2021	0.00437	0.000899 (J)	0.00334	0.00106 (J)	0.000997 (J)
10/18/2021				<0.0006	0.0112
10/19/2021		<0.0006			
10/20/2021	<0.0006		0.00172 (J)		
4/18/2022					0.00884
4/19/2022		0.00334		0.00291	
4/20/2022			0.00208		
4/21/2022	0.00327				
10/18/2022				<0.0006	0.00534
10/19/2022		0.0017 (J)			
10/24/2022	0.00122 (J)		0.0032		
4/17/2023					0.00293
4/18/2023	0.00615	<0.0006	0.00574	<0.0006	
Mean	0.006722	0.005529	0.01351	0.003277	0.007305
Std. Dev.	0.005724	0.004405	0.02216	0.002504	0.004908
Upper Lim.	0.005565	0.01	0.01152	0.005	0.009628
Lower Lim.	0.001273	0.000899	0.002549	0.0006	0.0032

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.05	<0.05	<0.05		
3/3/2018	<0.05	<0.05	<0.05		
4/14/2018	<0.05	<0.05	<0.05		
5/26/2018	<0.05	<0.05	<0.05		
6/23/2018	<0.05	<0.05	<0.05		
7/29/2018	<0.05	<0.05			
9/2/2018	0.0044	0.0136			
10/19/2018	<0.04			<0.04	0.041
11/27/2018	<0.04				<0.04
12/24/2018	<0.04	<0.04	<0.04		<0.04
1/22/2019					<0.04
4/22/2019					<0.04
6/18/2019				<0.04	<0.04
8/13/2019					<0.04
10/29/2019				<0.04	<0.04
11/29/2019				<0.04	<0.04
12/18/2019				<0.04	<0.04
1/22/2020	<0.04	<0.04	<0.04	<0.04	<0.04
4/23/2020	0.0102	0.0275	0.00552	0.0094	0.00975
7/22/2020				0.0114	
10/13/2020					0.00301 (J)
10/14/2020	0.0153	0.0227	0.017	0.00917	
4/27/2021	0.0204 (J)	0.0202	0.00346 (J)	0.00877	0.00528
10/18/2021				0.0092	0.00444 (J)
10/19/2021		0.0195			
10/20/2021	0.00903		0.00311 (J)		
4/18/2022					0.00346 (J)
4/19/2022		0.0225		0.011	
4/20/2022			0.00292 (J)		
4/21/2022	0.0129				
10/18/2022				0.00969	0.00444 (J)
10/19/2022		0.0227			
10/24/2022	0.00993		0.00385 (J)		
4/17/2023					0.00346 (J)
4/18/2023	0.00907	0.0172	0.00553	0.00839	
Mean	0.03062	0.03412	0.02653	0.02264	0.02638
Std. Dev.	0.01835	0.01446	0.02191	0.01562	0.01774
Upper Lim.	0.05	0.05	0.05	0.04	0.04
Lower Lim.	0.00993	0.0195	0.00346	0.00917	0.00444



# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.0002	<0.0002	<0.0002		
3/3/2018	<0.0002	<0.0002	<0.0002		
4/14/2018	<0.0002	<0.0002	<0.0002		
5/26/2018	<0.0002	<0.0002	<0.0002		
6/23/2018	<0.0002	<0.0002	<0.0002		
7/29/2018	<0.0002	<0.0002			
9/2/2018	<0.0002	<0.0002			
10/19/2018	<5E-05			<5E-05	<5E-05
11/27/2018	<0.0005				<5E-05
12/24/2018	<5E-05	<5E-05	<5E-05		<5E-05
1/22/2019					6.8E-05
4/22/2019					<5E-05
6/18/2019				<5E-05	<5E-05
8/13/2019					<5E-05
10/29/2019				<5E-05	<5E-05
11/29/2019				<5E-05	<5E-05
12/18/2019				<5E-05	<5E-05
1/22/2020	<0.00015	<5E-05	<5E-05	<5E-05	<5E-05
4/23/2020	<0.0003	<3E-05	<3E-05	<3E-05	<3E-05
7/22/2020				<3E-05	
10/13/2020					<3E-05
10/14/2020	<3E-05	<3E-05	3.4E-05 (J)	<3E-05	
4/27/2021	<3E-05	<3E-05	<3E-05	<3E-05	<3E-05
10/18/2021				<3E-05	6.1E-05 (JH)
10/19/2021		<3E-05			
10/20/2021	<3E-05		<3E-05		
4/18/2022					6.6E-05 (J)
4/19/2022		<3E-05		<3E-05	
4/20/2022			<3E-05		
4/21/2022	<3E-05				
10/18/2022				<3E-05	0.000175 (J)
10/19/2022		<3E-05			
10/24/2022	<3E-05		<3E-05		
4/17/2023					<3E-05
4/18/2023	<3E-05	<3E-05	<3E-05	<3E-05	
Mean	0.0001461	0.0001069	9.386E-05	3.857E-05	5.5E-05
Std. Dev.	0.0001257	8.507E-05	8.238E-05	1.027E-05	3.206E-05
Upper Lim.	0.0002	0.0002	0.0002	5E-05	6.1E-05
Lower Lim.	3E-05	3E-05	3E-05	3E-05	3E-05

# Confidence Interval

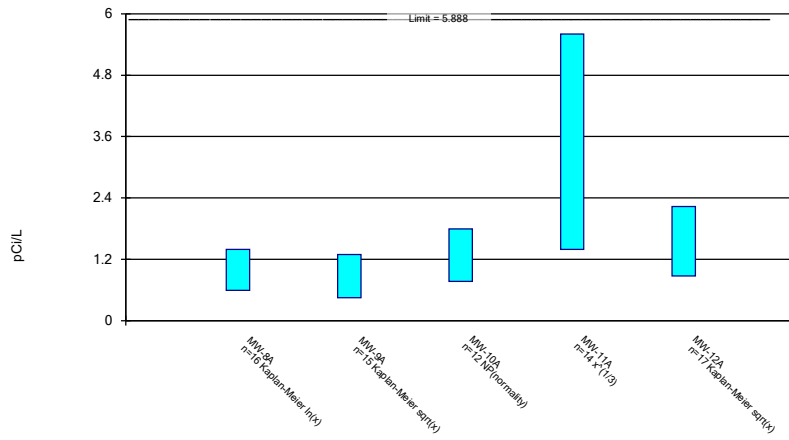
Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	0.014	<0.01		
3/3/2018	<0.01	0.0128	<0.01		
4/14/2018	<0.01	0.0124	<0.01		
5/26/2018	<0.01	0.0105	<0.01		
6/23/2018	<0.01	0.0117	<0.01		
7/29/2018	<0.01	<0.01			
9/2/2018	<0.01	0.0102			
10/19/2018	<0.005			<0.005	0.027
11/27/2018	<0.005				0.242
12/24/2018	<0.005	0.011	<0.005		0.117
1/22/2019					0.106
4/22/2019					0.057
6/18/2019				<0.005	0.03
8/13/2019					0.054
10/29/2019				<0.005	0.093
11/29/2019				<0.005	0.057
12/18/2019				<0.005	0.043
1/22/2020	<0.005	0.008	<0.005	<0.005	0.048
4/23/2020	0.00145 (J)	0.00579	0.00613	<0.0006	0.0306
7/22/2020				<0.0006	
10/13/2020					0.0411
10/14/2020	0.000698 (J)	0.00448 (J)	0.0329	<0.0006	
4/27/2021	0.00185 (J)	0.00556	0.00204 (J)	<0.0006	0.0445
10/18/2021				<0.0006	0.0605
10/19/2021		0.00516			
10/20/2021	<0.0006		0.0109		
4/18/2022					0.00822
4/19/2022		0.00368 (J)		<0.0006	
4/20/2022			0.0131		
4/21/2022	0.000879 (J)				
10/18/2022				<0.0006	0.0166
10/19/2022		0.00402 (J)			
10/24/2022	0.00157 (J)		0.00927		
4/17/2023					0.00582
4/18/2023	0.000954 (J)	0.00507	0.0134	<0.0006	
Mean	0.005444	0.008085	0.01055	0.002486	0.06007
Std. Dev.	0.004036	0.00361	0.007184	0.00226	0.05478
Upper Lim.	0.01	0.01018	0.01122	0.005	0.08125
Lower Lim.	0.000954	0.005567	0.002875	0.0006	0.0279

### 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.

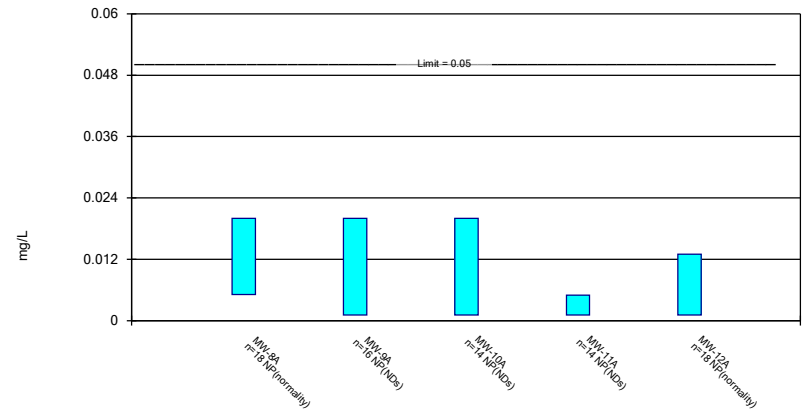


Constituent: Ra 226 and 228 Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

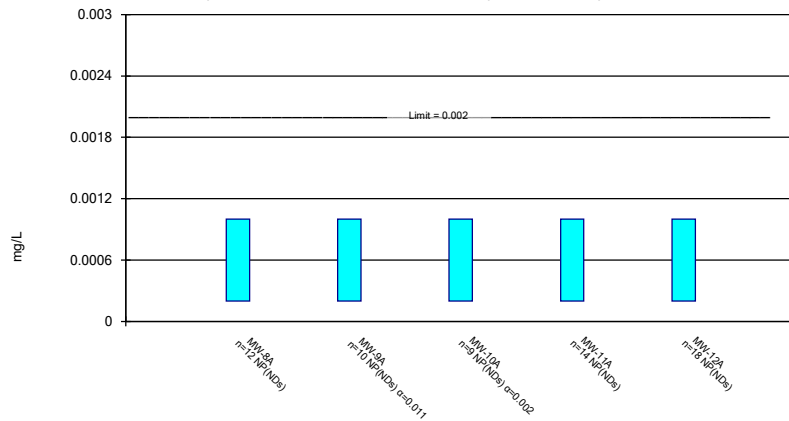


Constituent: Selenium Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Thallium Analysis Run 1/23/2024 11:50 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

# Confidence Interval

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
3/3/2018	0.913	0.8328	1.444		
4/14/2018	0.843	0.13573	0.882		
5/26/2018	3.16	1.005			
6/23/2018	0.7	0.658	1.753		
7/29/2018	0.423	1.586			
9/2/2018	1.397	0.421			
10/19/2018	<0.954			1.414	1.308
11/27/2018	<1.145				<0.832
12/24/2018	<1.05	<2.288	1.792		3.46
1/22/2019					<1.106
4/22/2019					2.141
6/18/2019				4.34	5.588
10/29/2019				<1.311	<2.885
11/29/2019				17.67	<6.223
12/18/2019				4.65	<2.648
1/22/2020	4.373	2.65	3.13	8.85	2.191
4/23/2020		<0.74	<0.94	3.36	1.2
7/22/2020				2.41	
10/13/2020					0.86
10/14/2020	<0.77	2.21	1.05	2.87	
4/27/2021	<1.02	<0.83	<0.77	3.12	1.04
10/18/2021				<0.95	1.12
10/19/2021		<0.91			
10/20/2021	1.51		0.91		
4/18/2022					<0.92
4/19/2022		<0.94		2.1	
4/20/2022			<0.92		
4/21/2022	<0.97				
10/18/2022				1.77	2.88
10/19/2022		0.954			
10/24/2022	1.14		0.966		
4/17/2023					0.575
4/18/2023	0.507	0.718	0.73	2.18	
Mean	1.305	1.125	1.274	3.99	2.175
Std. Dev.	1.025	0.7256	0.6869	4.456	1.655
Upper Lim.	1.393	1.293	1.792	5.604	2.229
Lower Lim.	0.5911	0.4461	0.77	1.394	0.872

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.02	<0.02	<0.02		
3/3/2018	<0.02	<0.02	<0.02		
4/14/2018	<0.02	<0.02	<0.02		
5/26/2018	<0.02	<0.02	<0.02		
6/23/2018	<0.02	<0.02	<0.02		
7/29/2018	<0.02	<0.02			
9/2/2018	0.00509	<0.002			
10/19/2018	0.005			<0.005	0.015
11/27/2018	0.006				0.009
12/24/2018	<0.005	<0.005	<0.005		0.012
1/22/2019					0.015
4/22/2019					<0.005
6/18/2019				0.035	0.009
8/13/2019					0.007
10/29/2019				<0.005	0.013
11/29/2019				<0.005	0.011
12/18/2019				<0.005	0.015
1/22/2020	0.018	<0.005	<0.005	<0.005	0.018
4/23/2020	0.0139	<0.0011	<0.0011	<0.0011	0.00158 (J)
7/22/2020				<0.0011	
10/13/2020					<0.0011
10/14/2020	0.0132	<0.0011	0.00314	<0.0011	
4/27/2021	0.013	<0.0011	<0.0011	<0.0011	<0.0011
10/18/2021				<0.0011	<0.0011
10/19/2021		<0.0011			
10/20/2021	<0.0011		<0.0011		
4/18/2022					<0.0011
4/19/2022		<0.0011		<0.0011	
4/20/2022			<0.0011		
4/21/2022	0.01				
10/18/2022				<0.0011	<0.0011
10/19/2022		<0.0011			
10/24/2022	0.00964		<0.0011		
4/17/2023					<0.0011
4/18/2023	0.00943	<0.0011	<0.0011	<0.0011	
Mean	0.01274	0.008731	0.008553	0.004914	0.007621
Std. Dev.	0.006566	0.009102	0.008957	0.008865	0.006103
Upper Lim.	0.02	0.02	0.02	0.005	0.013
Lower Lim.	0.00509	0.0011	0.0011	0.0011	0.0011

# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 11:54 AM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 230417 EVANS AND ASSOCIATES AM

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
3/3/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
4/14/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
5/26/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
6/23/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
7/29/2018	<0.02 (o)	<0.02 (o)			
9/2/2018	0.00036	<0.002			
10/19/2018	<0.001			<0.001	<0.001
11/27/2018	<0.001				<0.001
12/24/2018	<0.001	<0.001	<0.001		<0.001
1/22/2019					<0.001
4/22/2019					<0.001
6/18/2019				<0.001	<0.001
8/13/2019					<0.001
10/29/2019				<0.001	<0.001
11/29/2019				<0.001	<0.001
12/18/2019				<0.001	<0.001
1/22/2020	<0.001	<0.001	<0.001	<0.001	<0.001
4/23/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
7/22/2020				<0.0002	
10/13/2020					<0.0002
10/14/2020	<0.0002	<0.0002	0.000475 (J)	<0.0002	
4/27/2021	0.000252 (J)	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2021				<0.0002	<0.0002
10/19/2021		<0.0002			
10/20/2021	<0.0002		<0.0002		
4/18/2022					<0.0002
4/19/2022		<0.0002		<0.0002	
4/20/2022			<0.0002		
4/21/2022	<0.0002				
10/18/2022				<0.0002	<0.0002
10/19/2022		<0.0002			
10/24/2022	<0.0002		<0.0002		
4/17/2023					<0.0002
4/18/2023	<0.0002	<0.0002	<0.0002	<0.0002	
Mean	0.0004843	0.00054	0.0004083	0.0005429	0.0006889
Std. Dev.	0.0003835	0.0006114	0.0003473	0.0004108	0.0004013
Upper Lim.	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0002	0.0002	0.0002	0.0002	0.0002

# **ATTACHMENT D**

**SANITAS™ OUTPUT**

**(EVALUATION OF SECOND 2023 DATA)**

# Sen's / Mann-Kendall (Second 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 231102 EVANS AND ASSOCIATES AM - final    Printed 1/23/2024, 12:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Antimony (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0001452</b>	<b>-43</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Antimony (mg/L)</b>	<b>MW-8A</b>	<b>-0.0002227</b>	<b>-39</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>84.62</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Antimony (mg/L)	MW-9A	0	-22	-27	No	11	100	n/a	n/a	0.05	NP
Antimony (mg/L)	MW-10A	-0.0001307	-12	-23	No	10	30	n/a	n/a	0.05	NP
<b>Antimony (mg/L)</b>	<b>MW-11A</b>	<b>-0.001023</b>	<b>-60</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>93.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Antimony (mg/L)</b>	<b>MW-12A</b>	<b>-0.00004419</b>	<b>-84</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.001836</b>	<b>-127</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>MW-8A</b>	<b>-0.001632</b>	<b>-111</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>47.37</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>MW-9A</b>	<b>-0.001574</b>	<b>-73</b>	<b>-49</b>	<b>Yes</b>	<b>17</b>	<b>41.18</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Arsenic (mg/L)	MW-10A	-0.0006083	-37	-41	No	15	40	n/a	n/a	0.05	NP
<b>Arsenic (mg/L)</b>	<b>MW-11A</b>	<b>-0.00112</b>	<b>-73</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>26.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Arsenic (mg/L)	MW-12A	0	-20	-58	No	19	36.84	n/a	n/a	0.05	NP
<b>Barium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.07109</b>	<b>-106</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Barium (mg/L)	MW-8A	0.002469	7	58	No	19	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-9A	0.0009877	12	49	No	17	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-10A	-0.006752	-17	-41	No	15	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-11A	-0.01967	-13	-41	No	15	0	n/a	n/a	0.05	NP
Barium (mg/L)	MW-12A	-0.002328	-30	-58	No	19	0	n/a	n/a	0.05	NP
<b>Beryllium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0001646</b>	<b>-48</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>85.71</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Beryllium (mg/L)</b>	<b>MW-8A</b>	<b>-0.00018</b>	<b>-50</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>76.92</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Beryllium (mg/L)	MW-9A	-0.0001547	-26	-27	No	11	63.64	n/a	n/a	0.05	NP
Beryllium (mg/L)	MW-10A	0	-13	-23	No	10	80	n/a	n/a	0.05	NP
<b>Beryllium (mg/L)</b>	<b>MW-11A</b>	<b>-0.0001993</b>	<b>-56</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>73.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Beryllium (mg/L)</b>	<b>MW-12A</b>	<b>-0.0001688</b>	<b>-69</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>57.89</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0001621</b>	<b>-48</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-8A</b>	<b>-0.0001837</b>	<b>-44</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>92.31</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Cadmium (mg/L)	MW-9A	0	-24	-27	No	11	100	n/a	n/a	0.05	NP
<b>Cadmium (mg/L)</b>	<b>MW-10A</b>	<b>-0.00007341</b>	<b>-30</b>	<b>-23</b>	<b>Yes</b>	<b>10</b>	<b>70</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-11A</b>	<b>-0.0001778</b>	<b>-54</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cadmium (mg/L)</b>	<b>MW-12A</b>	<b>-0.0001646</b>	<b>-87</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>89.47</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Chromium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.003489</b>	<b>-118</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Chromium (mg/L)	MW-8A	-0.0009629	-51	-58	No	19	36.84	n/a	n/a	0.05	NP
<b>Chromium (mg/L)</b>	<b>MW-9A</b>	<b>-0.001804</b>	<b>-80</b>	<b>-49</b>	<b>Yes</b>	<b>17</b>	<b>52.94</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Chromium (mg/L)	MW-10A	-0.001408	-38	-41	No	15	40	n/a	n/a	0.05	NP
<b>Chromium (mg/L)</b>	<b>MW-11A</b>	<b>-0.002391</b>	<b>-72</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>46.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Chromium (mg/L)</b>	<b>MW-12A</b>	<b>-0.001977</b>	<b>-89</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>68.42</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.003929</b>	<b>-129</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MW-8A</b>	<b>-0.001841</b>	<b>-94</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>57.89</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Cobalt (mg/L)</b>	<b>MW-9A</b>	<b>-0.001844</b>	<b>-79</b>	<b>-49</b>	<b>Yes</b>	<b>17</b>	<b>58.82</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Cobalt (mg/L)	MW-10A	-0.001212	-31	-41	No	15	26.67	n/a	n/a	0.05	NP



# Sen's / Mann-Kendall (Second 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 231102 EVANS AND ASSOCIATES AM - final    Printed 1/23/2024, 12:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Cobalt (mg/L)</b>	<b>MW-11A</b>	<b>-0.002376</b>	<b>-62</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>46.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Cobalt (mg/L)	MW-12A	-0.00004357	-46	-58	No	19	52.63	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-6A (bg)	0.0026	23	96	No	27	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-8A	-0.01094	-78	-96	No	27	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-9A	0.008165	38	85	No	25	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	MW-10A	0.01125	8	76	No	23	17.39	n/a	n/a	0.05	NP
<b>Fluoride (mg/L)</b>	<b>MW-11A</b>	<b>-0.02857</b>	<b>-50</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Fluoride (mg/L)	MW-12A	-0.01177	-7	-58	No	19	0	n/a	n/a	0.05	NP
<b>Lead (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.002568</b>	<b>-105</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Lead (mg/L)	MW-8A	-0.001231	-82	-58	Yes	19	57.89	n/a	n/a	0.05	NP
Lead (mg/L)	MW-9A	-0.001746	-80	-49	Yes	17	47.06	n/a	n/a	0.05	NP
Lead (mg/L)	MW-10A	-0.001441	-48	-41	Yes	15	26.67	n/a	n/a	0.05	NP
Lead (mg/L)	MW-11A	-0.001233	-71	-41	Yes	15	53.33	n/a	n/a	0.05	NP
Lead (mg/L)	MW-12A	-0.0002235	-17	-58	No	19	31.58	n/a	n/a	0.05	NP
<b>Lithium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.01056</b>	<b>-133</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Lithium (mg/L)	MW-8A	-0.007971	-105	-58	Yes	19	52.63	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-9A	-0.006186	-89	-49	Yes	17	47.06	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-10A	-0.009078	-64	-41	Yes	15	46.67	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-11A	-0.007027	-54	-41	Yes	15	40	n/a	n/a	0.05	NP
Lithium (mg/L)	MW-12A	-0.007741	-102	-58	Yes	19	52.63	n/a	n/a	0.05	NP
<b>Mercury (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.00003194</b>	<b>-133</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Mercury (mg/L)	MW-8A	-0.00003157	-88	-58	Yes	19	100	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-9A	-0.00003092	-86	-49	Yes	17	100	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-10A	-0.00001584	-71	-41	Yes	15	93.33	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-11A	-0.000004446	-54	-41	Yes	15	100	n/a	n/a	0.05	NP
Mercury (mg/L)	MW-12A	0	-24	-58	No	19	78.95	n/a	n/a	0.05	NP
<b>Molybdenum (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.001934</b>	<b>-124</b>	<b>-62</b>	<b>Yes</b>	<b>20</b>	<b>95</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Molybdenum (mg/L)	MW-8A	-0.00181	-120	-58	Yes	19	63.16	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-9A	-0.001762	-98	-49	Yes	17	5.882	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-10A	0.0002643	18	41	No	15	46.67	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-11A	-0.0009781	-54	-41	Yes	15	100	n/a	n/a	0.05	NP
Molybdenum (mg/L)	MW-12A	-0.01406	-84	-58	Yes	19	0	n/a	n/a	0.05	NP
<b>Ra 226 and 228 (pCi/L)</b>	<b>MW-6A (bg)</b>	<b>-0.2278</b>	<b>-59</b>	<b>-53</b>	<b>Yes</b>	<b>18</b>	<b>27.78</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Ra 226 and 228 (pCi/L)	MW-8A	0.04118	18	49	No	17	35.29	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-9A	0.08487	28	45	No	16	31.25	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-10A	-0.05588	-12	-34	No	13	23.08	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-11A	-0.3951	-17	-41	No	15	13.33	n/a	n/a	0.05	NP
Ra 226 and 228 (pCi/L)	MW-12A	-0.1425	-31	-53	No	18	33.33	n/a	n/a	0.05	NP
Selenium (mg/L)	MW-6A (bg)	-0.00149	-57	-62	No	20	45	n/a	n/a	0.05	NP
<b>Selenium (mg/L)</b>	<b>MW-8A</b>	<b>-0.002192</b>	<b>-81</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>42.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>

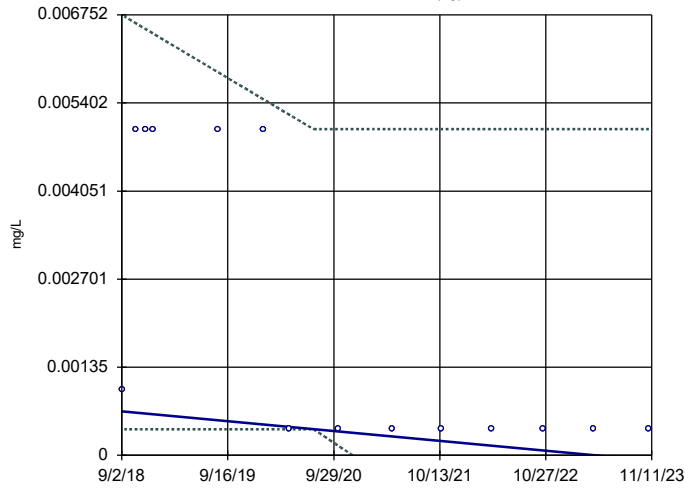
# Sen's / Mann-Kendall (Second 2023 Sampling)

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final Printed 1/23/2024, 12:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Selenium (mg/L)</b>	<b>MW-9A</b>	<b>-0.003166</b>	<b>-88</b>	<b>-49</b>	<b>Yes</b>	<b>17</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Selenium (mg/L)</b>	<b>MW-10A</b>	<b>-0.003088</b>	<b>-71</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>93.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Selenium (mg/L)</b>	<b>MW-11A</b>	<b>-0.001006</b>	<b>-57</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>93.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Selenium (mg/L)</b>	<b>MW-12A</b>	<b>-0.002607</b>	<b>-84</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>42.11</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Thallium (mg/L)</b>	<b>MW-6A (bg)</b>	<b>-0.0002005</b>	<b>-53</b>	<b>-37</b>	<b>Yes</b>	<b>14</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Thallium (mg/L)</b>	<b>MW-8A</b>	<b>-0.00003966</b>	<b>-39</b>	<b>-34</b>	<b>Yes</b>	<b>13</b>	<b>84.62</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
Thallium (mg/L)	MW-9A	0	-26	-27	No	11	100	n/a	n/a	0.05	NP
Thallium (mg/L)	MW-10A	0	-21	-23	No	10	90	n/a	n/a	0.05	NP
<b>Thallium (mg/L)</b>	<b>MW-11A</b>	<b>-0.0001778</b>	<b>-54</b>	<b>-41</b>	<b>Yes</b>	<b>15</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>
<b>Thallium (mg/L)</b>	<b>MW-12A</b>	<b>-0.0001646</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>19</b>	<b>100</b>	<b>n/a</b>	<b>n/a</b>	<b>0.05</b>	<b>NP</b>

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



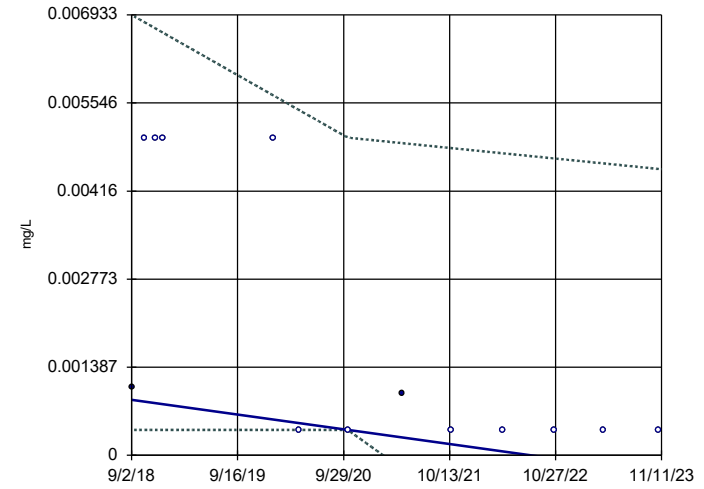
n = 14  
Slope = -0.0001452  
units per year.  
Mann-Kendall  
statistic = -43  
critical = -37  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



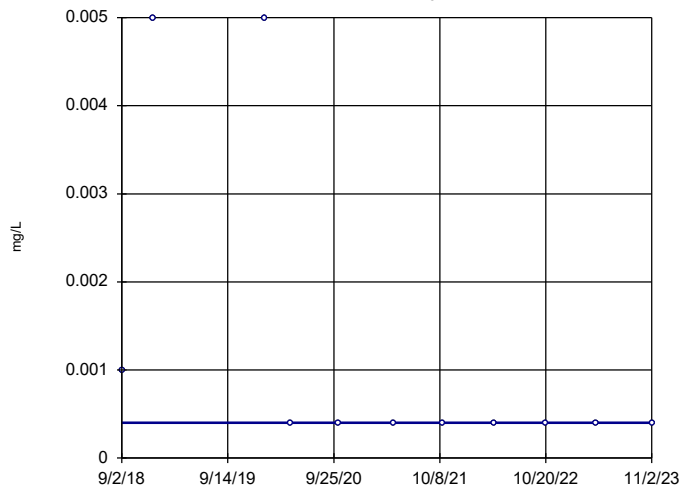
n = 13  
Slope = -0.0002227  
units per year.  
Mann-Kendall  
statistic = -39  
critical = -34  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-9A



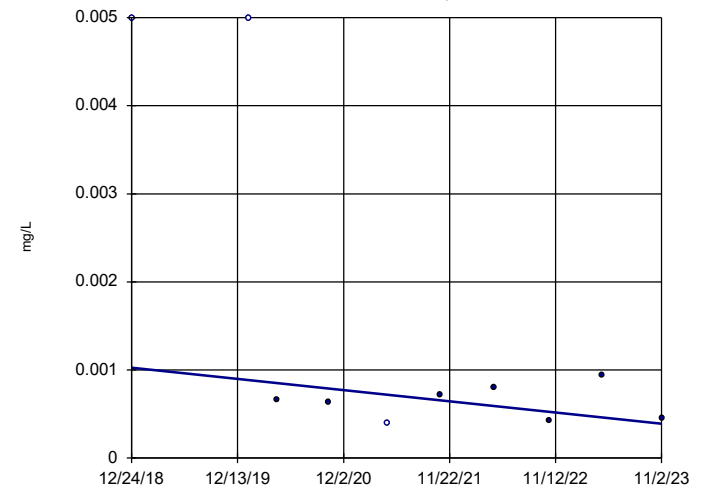
n = 11  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -22  
critical = -27  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



n = 10  
Slope = -0.0001307  
units per year.  
Mann-Kendall  
statistic = -12  
critical = -23  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	0.0104 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0004	0.006752
10/24/2018	<0.005	0.0004	0.006619
11/27/2018	<0.005	0.0004	0.006532
12/24/2018	<0.005	0.0004	0.006464
8/13/2019	<0.005	0.0004	0.005871
1/22/2020	<0.005	0.0004	0.005457
4/23/2020	<0.0004	0.0004	0.005222
10/14/2020	<0.0004	0.0001508	0.005
4/27/2021	<0.0004	-0.0004078	0.005
10/18/2021	<0.0004	-0.0009062	0.005
4/19/2022	<0.0004	-0.00143	0.005
10/19/2022	<0.0004	-0.001955	0.005
4/18/2023	<0.0004	-0.002473	0.005
11/2/2023	<0.0004	-0.00304	0.005

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	0.00108	0.0004	0.006933
10/19/2018	<0.005	0.0004	0.006815
11/27/2018	<0.005	0.0004	0.006718
12/24/2018	<0.005	0.0004	0.00665
1/22/2020	<0.005	0.0004	0.005665
4/23/2020	<0.0004	0.0004	0.005435
10/14/2020	<0.0004	0.0004	0.005
4/27/2021	0.000975 (J)	-0.0002119	0.004914
10/20/2021	<0.0004	-0.0007641	0.004836
4/21/2022	<0.0004	-0.001338	0.004755
10/24/2022	<0.0004	-0.001922	0.004672
4/18/2023	<0.0004	-0.002474	0.004594
11/2/2023	<0.0004	-0.003095	0.004507

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

## MW-9A

1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
7/29/2018	<0.01 (o)
9/2/2018	<0.001
12/24/2018	<0.005
1/22/2020	<0.005
4/23/2020	<0.0004
10/14/2020	<0.0004
4/27/2021	<0.0004
10/19/2021	<0.0004
4/19/2022	<0.0004
10/19/2022	<0.0004
4/18/2023	<0.0004
11/2/2023	<0.0004

# Sen's Slope Estimator

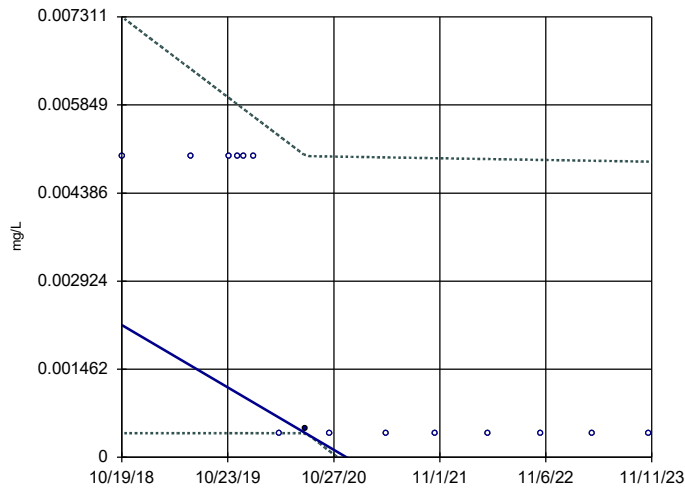
Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
12/24/2018	<0.005
1/22/2020	<0.005
4/23/2020	0.000655 (J)
10/14/2020	0.000632 (J)
4/27/2021	<0.0004
10/20/2021	0.000723 (J)
4/20/2022	0.000803 (J)
10/24/2022	0.000431 (J)
4/18/2023	0.000943 (J)
11/2/2023	0.000457 (J)

### Sen's Slope and 95% Confidence Band

MW-11A



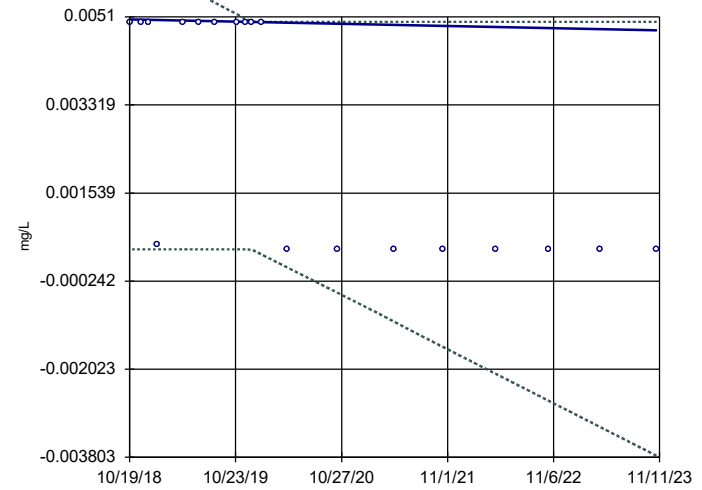
n = 15  
Slope = -0.001023  
units per year.  
Mann-Kendall  
statistic = -60  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



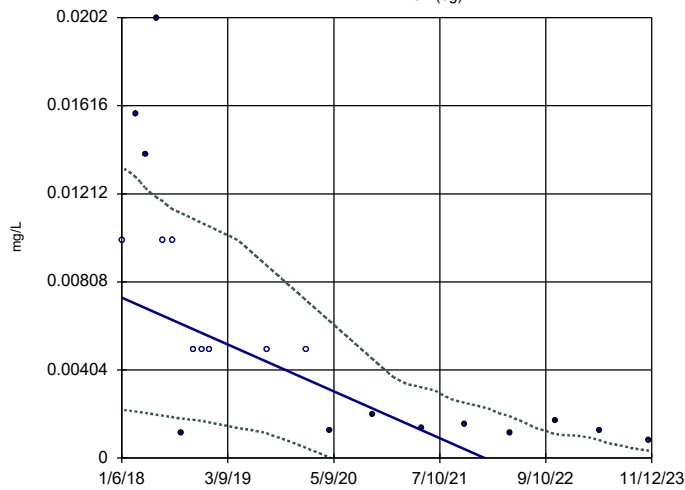
n = 19  
Slope = -0.00004419  
units per year.  
Mann-Kendall  
statistic = -84  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Antimony Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



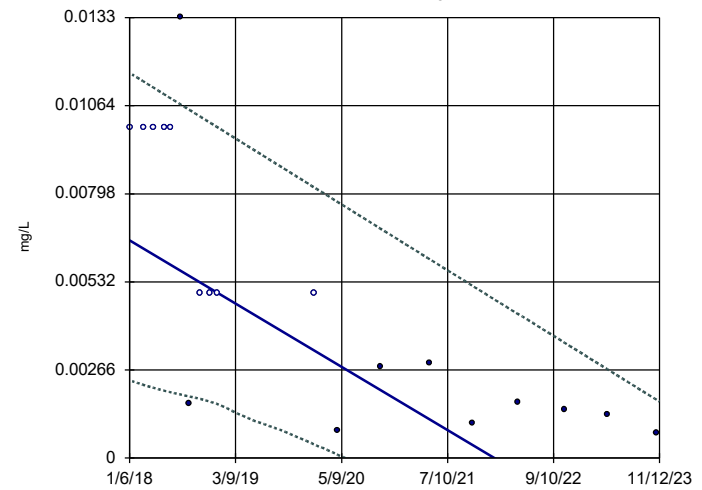
n = 20  
Slope = -0.001836  
units per year.  
Mann-Kendall  
statistic = -127  
critical = -62  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



n = 19  
Slope = -0.001632  
units per year.  
Mann-Kendall  
statistic = -111  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0004	0.007311
6/18/2019	<0.005	0.0004	0.00644
10/29/2019	<0.005	0.0004	0.005961
11/29/2019	<0.005	0.0004	0.005849
12/18/2019	<0.005	0.0004	0.005781
1/22/2020	<0.005	0.0004	0.005655
4/23/2020	<0.0004	0.0004	0.005324
7/22/2020	0.000484 (J)	0.0004	0.005
10/14/2020	<0.0004	0.00009765	0.004994
4/27/2021	<0.0004	-0.0006989	0.004979
10/18/2021	<0.0004	-0.001437	0.004965
4/19/2022	<0.0004	-0.002212	0.004951
10/18/2022	<0.0004	-0.002984	0.004937
4/18/2023	<0.0004	-0.003756	0.004923
11/2/2023	<0.0004	-0.004595	0.004908

# Sen's Slope Estimator

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	<0.005	0.0004	0.00629
11/27/2018	<0.005	0.0004	0.006172
12/24/2018	<0.005	0.0004	0.00609
1/22/2019	<0.0005	0.0004	0.006002
4/22/2019	<0.005	0.0004	0.005729
6/18/2019	<0.005	0.0004	0.005556
8/13/2019	<0.005	0.0004	0.005386
10/29/2019	<0.005	0.0004	0.005152
11/29/2019	<0.005	0.0004	0.005058
12/18/2019	<0.005	0.0004	0.005
1/22/2020	<0.005	0.0002978	0.005
4/23/2020	<0.0004	0.00002908	0.005
10/13/2020	<0.0004	-0.0004762	0.005
4/27/2021	<0.0004	-0.001056	0.005
10/18/2021	<0.0004	-0.001578	0.005
4/18/2022	<0.0004	-0.002115	0.005
10/18/2022	<0.0004	-0.002655	0.005
4/17/2023	<0.0004	-0.003189	0.005
11/2/2023	<0.0004	-0.003777	0.005

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.002214	0.01334
3/3/2018	0.0158	0.002137	0.01289
4/14/2018	0.0139	0.002063	0.01235
5/26/2018	0.0202	0.001989	0.01197
6/23/2018	<0.01	0.00194	0.01174
7/29/2018	<0.01	0.001877	0.01142
9/2/2018	0.00118	0.001816	0.01123
10/24/2018	<0.005	0.001759	0.01095
11/27/2018	<0.005	0.001701	0.01077
12/24/2018	<0.005	0.001639	0.01062
8/13/2019	<0.005	0.001137	0.008834
1/22/2020	<0.005	0.0004485	0.007205
4/23/2020	0.00125 (J)	0.00002363	0.006279
10/14/2020	0.00198 (J)	-0.000863	0.00453
4/27/2021	0.00136 (J)	-0.002395	0.003241
10/18/2021	0.00153 (J)	-0.004468	0.002537
4/19/2022	0.00114 (J)	-0.006	0.001907
10/19/2022	0.00171 (J)	-0.007799	0.001106
4/18/2023	0.00124 (J)	-0.009525	0.0008155
11/2/2023	0.00081 (J)	-0.0115	0.0003369

# Sen's Slope Estimator

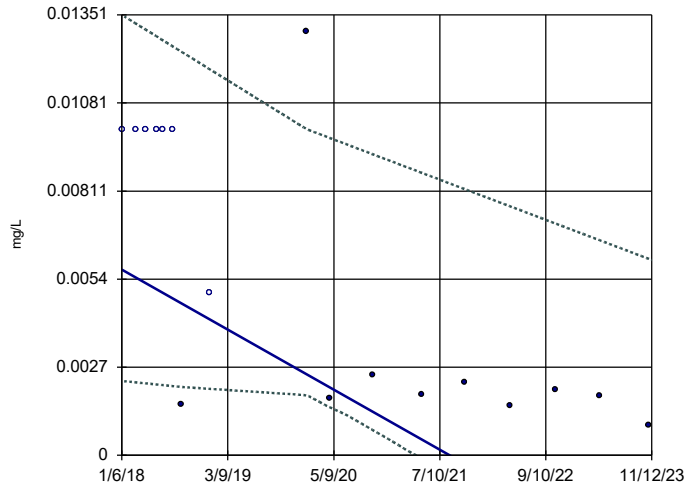
Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.002348	0.01163
3/3/2018	<0.01	0.00221	0.01137
4/14/2018	<0.01	0.002119	0.01118
5/26/2018	<0.01	0.002032	0.01098
6/23/2018	<0.01	0.001983	0.01085
7/29/2018	0.0133	0.001922	0.01069
9/2/2018	0.00164	0.001863	0.01052
10/19/2018	<0.005	0.001785	0.01031
11/27/2018	<0.005	0.001702	0.01013
12/24/2018	<0.005	0.00164	0.01
1/22/2020	<0.005	0.0004075	0.008164
4/23/2020	0.000833 (J)	0.0001026	0.007736
10/14/2020	0.00276	-0.0004694	0.006925
4/27/2021	0.00288	-0.001461	0.006016
10/20/2021	0.00104 (J)	-0.002338	0.005196
4/21/2022	0.0017 (J)	-0.003319	0.004354
10/24/2022	0.00148 (J)	-0.004576	0.003489
4/18/2023	0.00131 (J)	-0.005681	0.002671
11/2/2023	0.000747 (J)	-0.006941	0.00175

### Sen's Slope and 95% Confidence Band

MW-9A



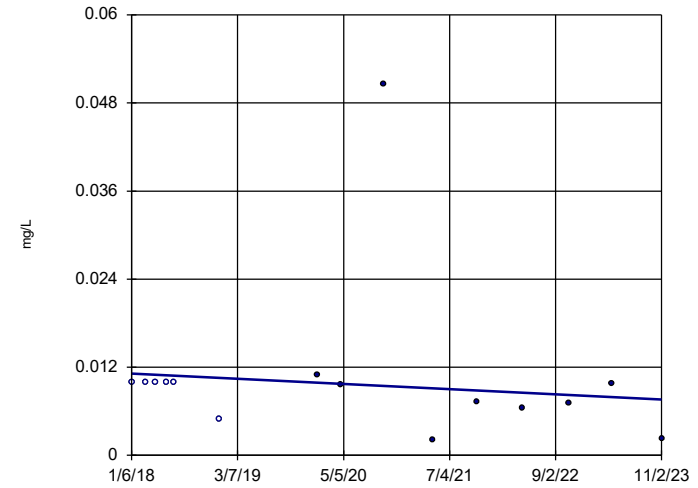
n = 17  
Slope = -0.001574  
units per year.  
Mann-Kendall  
statistic = -73  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



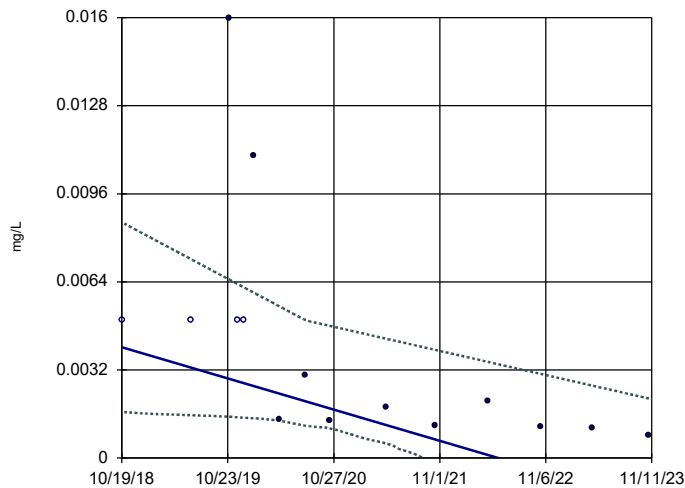
n = 15  
Slope = -0.0006083  
units per year.  
Mann-Kendall  
statistic = -37  
critical = -41  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A



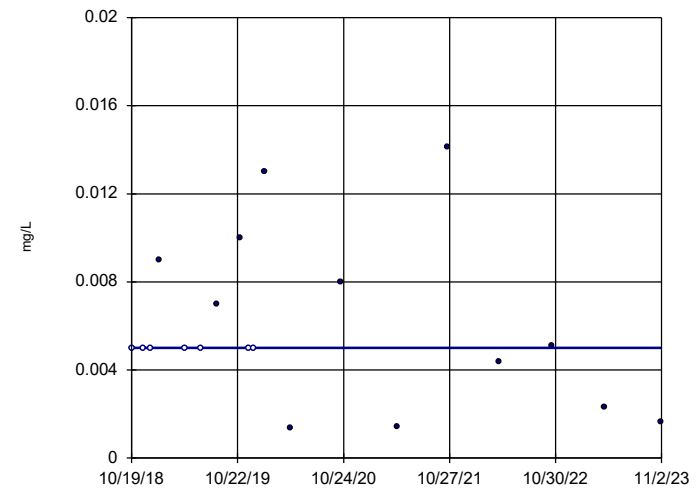
n = 15  
Slope = -0.00112  
units per year.  
Mann-Kendall  
statistic = -73  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-12A



n = 19  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -20  
critical = -58  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Arsenic Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.002281	0.01351
3/3/2018	<0.01	0.002238	0.01325
4/14/2018	<0.01	0.002206	0.01305
5/26/2018	<0.01	0.002173	0.01285
6/23/2018	<0.01	0.002152	0.01272
7/29/2018	<0.01	0.002124	0.01255
9/2/2018	0.00158	0.002098	0.01239
12/24/2018	<0.005	0.002041	0.01185
1/22/2020	0.013	0.00184	0.01
4/23/2020	0.00174 (J)	0.001474	0.009735
10/14/2020	0.00248	0.0007724	0.009233
4/27/2021	0.00185 (J)	-0.00009194	0.00867
10/19/2021	0.00225	-0.0008566	0.008166
4/19/2022	0.00151 (J)	-0.001652	0.007641
10/19/2022	0.00203	-0.002455	0.007113
4/18/2023	0.00184 (J)	-0.00325	0.006591
11/2/2023	0.000935 (J)	-0.004158	0.00602

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	<0.01
5/26/2018	<0.01
6/23/2018	<0.01
12/24/2018	<0.005
1/22/2020	0.011
4/23/2020	0.00957
10/14/2020	0.0505
4/27/2021	0.00211
10/20/2021	0.00734
4/20/2022	0.0064
10/24/2022	0.00708
4/18/2023	0.00976
11/2/2023	0.00224

# Sen's Slope Estimator

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.001673	0.008569
6/18/2019	<0.005	0.001558	0.007224
10/29/2019	0.016	0.001505	0.006484
11/29/2019	<0.005	0.001479	0.006312
12/18/2019	<0.005	0.001466	0.006206
1/22/2020	0.011	0.001449	0.006012
4/23/2020	0.00142 (J)	0.001353	0.0055
7/22/2020	0.00303	0.00117	0.005
10/14/2020	0.00136 (J)	0.001075	0.004801
4/27/2021	0.00184 (J)	0.0005352	0.004339
10/18/2021	0.00117 (J)	-0.0002026	0.003927
4/19/2022	0.00206	-0.00116	0.003493
10/18/2022	0.00114 (J)	-0.002426	0.003062
4/18/2023	0.00111 (J)	-0.004078	0.002631
11/2/2023	0.00081 (J)	-0.005693	0.002162



# Sen's Slope Estimator

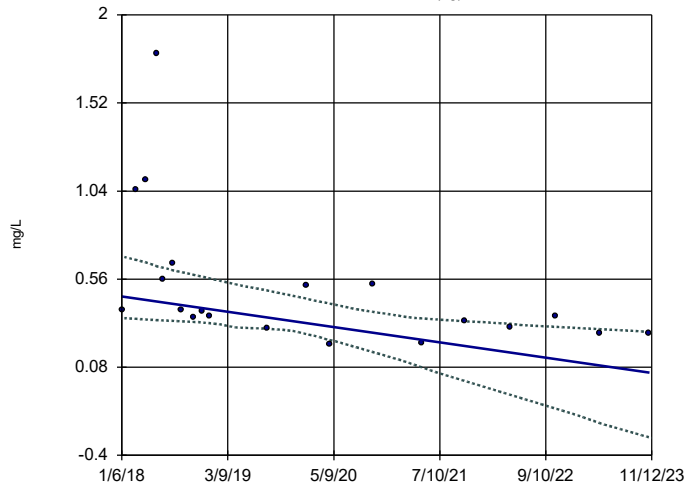
Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A
10/19/2018	<0.005
11/27/2018	<0.005
12/24/2018	<0.005
1/22/2019	0.009
4/22/2019	<0.005
6/18/2019	<0.005
8/13/2019	0.007
10/29/2019	0.01
11/29/2019	<0.005
12/18/2019	<0.005
1/22/2020	0.013
4/23/2020	0.00135 (J)
10/13/2020	0.00798
4/27/2021	0.00143 (J)
10/18/2021	0.0141
4/18/2022	0.00439
10/18/2022	0.00512
4/17/2023	0.00232
11/2/2023	0.00166 (J)

### Sen's Slope and 95% Confidence Band

MW-6A (bg)

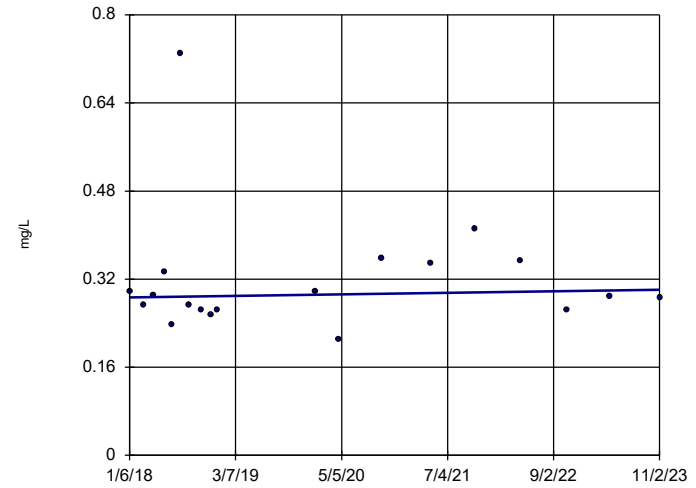


Constituent: Barium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-8A

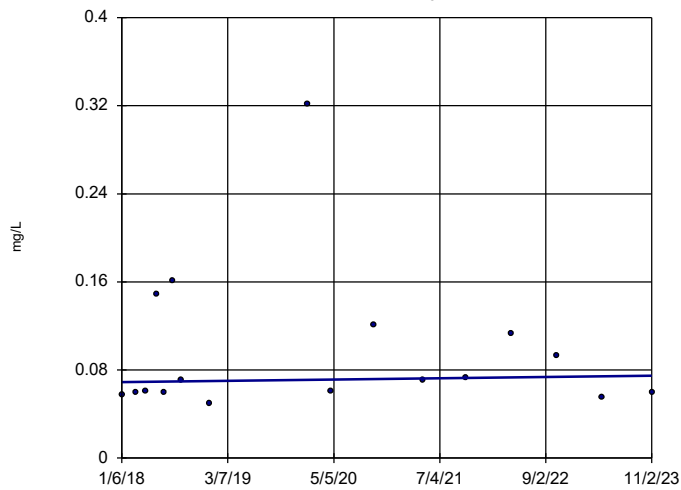


Constituent: Barium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-9A

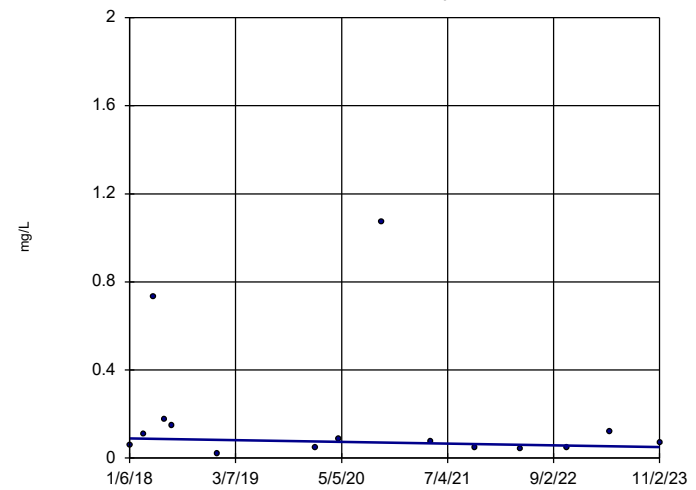


Constituent: Barium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



Constituent: Barium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	0.394	0.348	0.684
3/3/2018	1.05	0.344	0.6653
4/14/2018	1.1	0.3399	0.6509
5/26/2018	1.79	0.337	0.6305
6/23/2018	0.562	0.3351	0.6217
7/29/2018	0.643	0.3327	0.609
9/2/2018	0.391	0.3303	0.5987
10/24/2018	0.353	0.3268	0.5834
11/27/2018	0.388	0.3236	0.5731
12/24/2018	0.36	0.3202	0.5646
8/13/2019	0.292	0.2906	0.4991
1/22/2020	0.526	0.2592	0.4528
4/23/2020	0.205	0.2281	0.4266
10/14/2020	0.533	0.1627	0.3818
4/27/2021	0.212	0.0805	0.3462
10/18/2021	0.334	0.005556	0.3307
4/19/2022	0.296	-0.0697	0.3172
10/19/2022	0.358	-0.145	0.3002
4/18/2023	0.266	-0.2252	0.2874
11/2/2023	0.262	-0.302	0.2721

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A
1/6/2018	0.298
3/3/2018	0.272
4/14/2018	0.29
5/26/2018	0.334
6/23/2018	0.237
7/29/2018	0.73
9/2/2018	0.274
10/19/2018	0.265
11/27/2018	0.255
12/24/2018	0.265
1/22/2020	0.298
4/23/2020	0.211
10/14/2020	0.357
4/27/2021	0.348
10/20/2021	0.412
4/21/2022	0.354
10/24/2022	0.263
4/18/2023	0.289
11/2/2023	0.286

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A
1/6/2018	0.0574
3/3/2018	0.0591
4/14/2018	0.0602
5/26/2018	0.149
6/23/2018	0.0597
7/29/2018	0.161
9/2/2018	0.0712
12/24/2018	0.05
1/22/2020	0.321
4/23/2020	0.061
10/14/2020	0.121
4/27/2021	0.0711
10/19/2021	0.0728
4/19/2022	0.113
10/19/2022	0.0925
4/18/2023	0.0547
11/2/2023	0.0593

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:12 PM

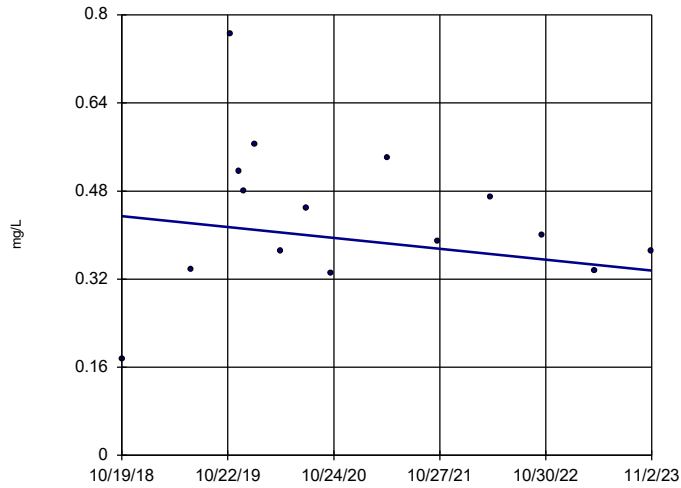
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

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	MW-10A
1/6/2018	0.0588
3/3/2018	0.109
4/14/2018	0.732
5/26/2018	0.174
6/23/2018	0.148
12/24/2018	0.022
1/22/2020	0.045
4/23/2020	0.0861
10/14/2020	1.07
4/27/2021	0.0735
10/20/2021	0.0459
4/20/2022	0.0439
10/24/2022	0.0498
4/18/2023	0.117
11/2/2023	0.0673

### Sen's Slope Estimator

MW-11A



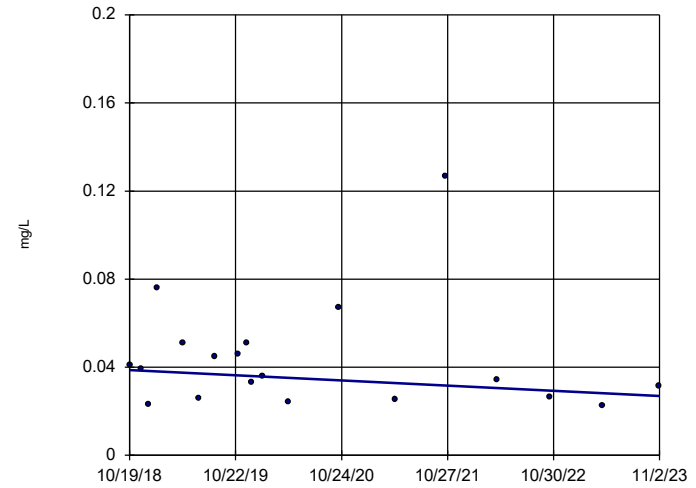
n = 15  
 Slope = -0.01967  
 units per year.  
 Mann-Kendall  
 statistic = -13  
 critical = -41  
 Trend not sig-  
 nificant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Barium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-12A



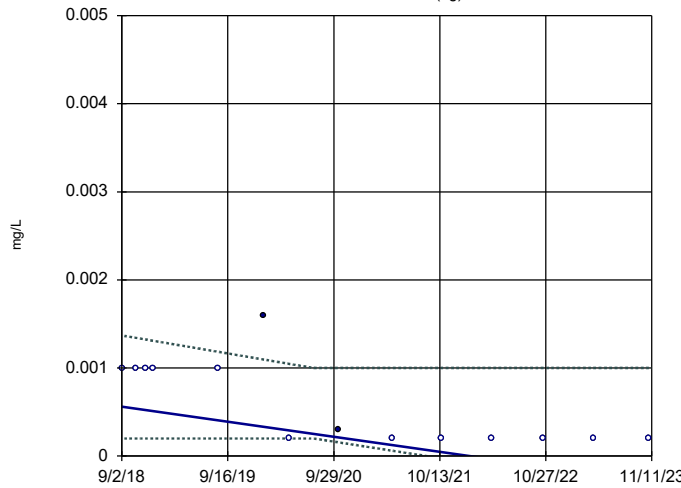
n = 19  
 Slope = -0.002328  
 units per year.  
 Mann-Kendall  
 statistic = -30  
 critical = -58  
 Trend not sig-  
 nificant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Barium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



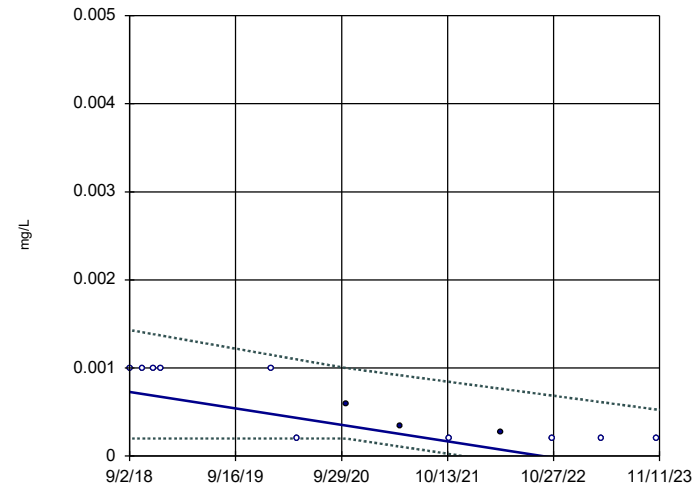
n = 14  
 Slope = -0.0001646  
 units per year.  
 Mann-Kendall  
 statistic = -48  
 critical = -37  
 Decreasing trend  
 significant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Beryllium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



n = 13  
 Slope = -0.00018  
 units per year.  
 Mann-Kendall  
 statistic = -50  
 critical = -34  
 Decreasing trend  
 significant at 95%  
 confidence level  
 ( $\alpha = 0.025$  per  
 tail).

Constituent: Beryllium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A
10/19/2018	0.176
6/18/2019	0.338
10/29/2019	0.765
11/29/2019	0.515
12/18/2019	0.481
1/22/2020	0.564
4/23/2020	0.371
7/22/2020	0.448
10/14/2020	0.332
4/27/2021	0.541
10/18/2021	0.389
4/19/2022	0.468
10/18/2022	0.4
4/18/2023	0.335
11/2/2023	0.372



# Sen's Slope Estimator

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A
10/19/2018	0.041
11/27/2018	0.039
12/24/2018	0.023
1/22/2019	0.076
4/22/2019	0.051
6/18/2019	0.026
8/13/2019	0.045
10/29/2019	0.046
11/29/2019	0.051
12/18/2019	0.033
1/22/2020	0.036
4/23/2020	0.0241
10/13/2020	0.067
4/27/2021	0.0256
10/18/2021	0.127
4/18/2022	0.034
10/18/2022	0.0264
4/17/2023	0.0226
11/2/2023	0.0316

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0002	0.001369
10/24/2018	<0.001	0.0002	0.001341
11/27/2018	<0.001	0.0002	0.001323
12/24/2018	<0.001	0.0002	0.001309
8/13/2019	<0.001	0.0002	0.001184
1/22/2020	0.0016	0.0002	0.001096
4/23/2020	<0.0002	0.0002	0.001047
10/14/2020	0.000305 (J)	0.000157	0.001
4/27/2021	<0.0002	0.00006073	0.001
10/18/2021	<0.0002	-0.00002521	0.001
4/19/2022	<0.0002	-0.0001189	0.001
10/19/2022	<0.0002	-0.0002144	0.001
4/18/2023	<0.0002	-0.0003091	0.001
11/2/2023	<0.0002	-0.0004096	0.001

# Sen's Slope Estimator

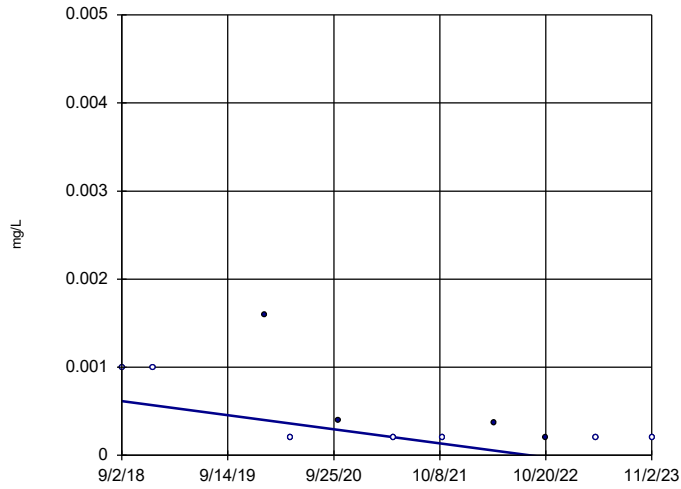
Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0002	0.001431
10/19/2018	<0.001	0.0002	0.001405
11/27/2018	<0.001	0.0002	0.001383
12/24/2018	<0.001	0.0002	0.001368
1/22/2020	<0.001	0.0002	0.001148
4/23/2020	<0.0002	0.0002	0.001097
10/14/2020	0.000585 (J)	0.0002	0.001
4/27/2021	0.000347 (J)	0.0001076	0.0009173
10/20/2021	<0.0002	0.00002427	0.0008427
4/21/2022	0.000273 (J)	-0.0000624	0.0007651
10/24/2022	<0.0002	-0.000153	0.0006863
4/18/2023	<0.0002	-0.0002709	0.0006117
11/2/2023	<0.0002	-0.0003796	0.0005277

### Sen's Slope Estimator

MW-9A



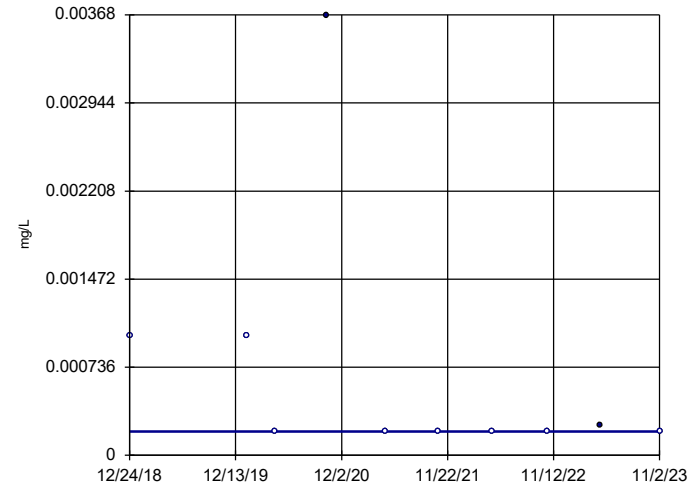
n = 11  
Slope = -0.0001547  
units per year.  
Mann-Kendall  
statistic = -26  
critical = -27  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Beryllium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



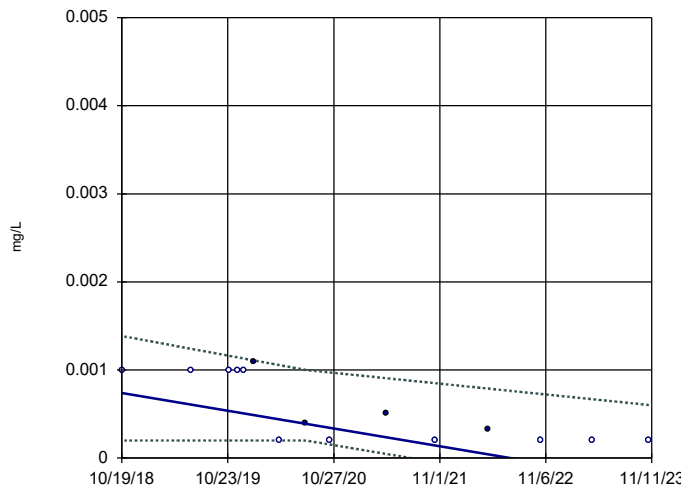
n = 10  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -13  
critical = -23  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Beryllium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A



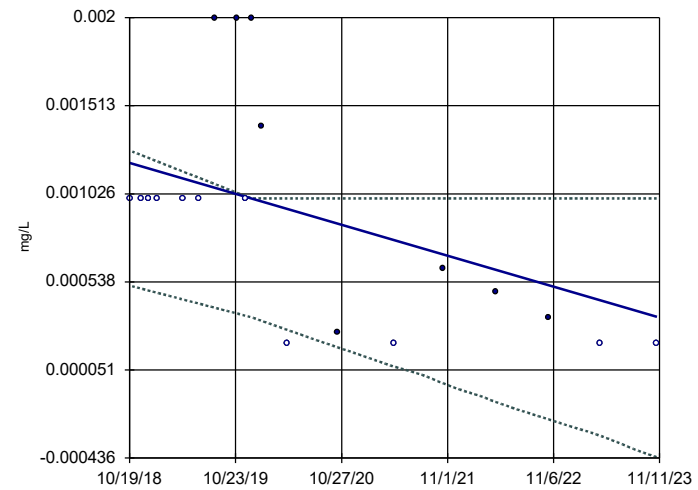
n = 15  
Slope = -0.0001993  
units per year.  
Mann-Kendall  
statistic = -56  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Beryllium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



n = 19  
Slope = -0.0001688  
units per year.  
Mann-Kendall  
statistic = -69  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Beryllium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

## MW-9A

1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
7/29/2018	<0.01 (o)
9/2/2018	<0.001
12/24/2018	<0.001
1/22/2020	0.0016
4/23/2020	<0.0002
10/14/2020	0.000391 (J)
4/27/2021	<0.0002
10/19/2021	<0.0002
4/19/2022	0.000369 (J)
10/19/2022	0.000205 (J)
4/18/2023	<0.0002
11/2/2023	<0.0002

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	0.00368
4/27/2021	<0.0002
10/20/2021	<0.0002
4/20/2022	<0.0002
10/24/2022	<0.0002
4/18/2023	0.000252 (J)
11/2/2023	<0.0002

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001386
6/18/2019	<0.001	0.0002	0.001241
10/29/2019	<0.001	0.0002	0.001161
11/29/2019	<0.001	0.0002	0.001142
12/18/2019	<0.001	0.0002	0.001131
1/22/2020	0.0011	0.0002	0.001109
4/23/2020	<0.0002	0.0002	0.001054
7/22/2020	0.00039 (J)	0.0002	0.001
10/14/2020	<0.0002	0.0001541	0.0009721
4/27/2021	0.000502 (J)	0.00004765	0.0009074
10/18/2021	<0.0002	-0.00004737	0.0008497
4/19/2022	0.000322 (J)	-0.0001473	0.0007889
10/18/2022	<0.0002	-0.0002467	0.0007285
4/18/2023	<0.0002	-0.0003481	0.0006681
11/2/2023	<0.0002	-0.0004712	0.0006024

# Sen's Slope Estimator

Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:12 PM

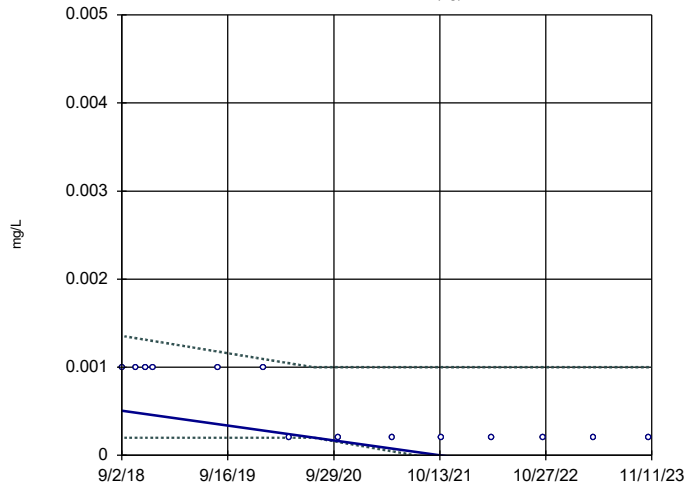
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	<0.001	0.0005179	0.001265
11/27/2018	<0.001	0.0005019	0.001241
12/24/2018	<0.001	0.0004908	0.001224
1/22/2019	<0.001	0.0004788	0.001206
4/22/2019	<0.001	0.0004418	0.00115
6/18/2019	<0.001	0.0004183	0.001114
8/13/2019	0.002	0.0003953	0.001079
10/29/2019	0.002	0.0003636	0.001031
11/29/2019	<0.001	0.0003508	0.001012
12/18/2019	0.002	0.000343	0.001
1/22/2020	0.0014	0.0003235	0.001
4/23/2020	<0.0002	0.0002721	0.001
10/13/2020	0.000258 (J)	0.0001768	0.001
4/27/2021	<0.0002	0.00007091	0.001
10/18/2021	0.00061 (J)	-0.00002312	0.001
4/18/2022	0.000482 (J)	-0.0001255	0.001
10/18/2022	0.000343 (J)	-0.0002211	0.001
4/17/2023	<0.0002	-0.0003123	0.001
11/2/2023	<0.0002	-0.0004315	0.001



### Sen's Slope and 95% Confidence Band

MW-6A (bg)



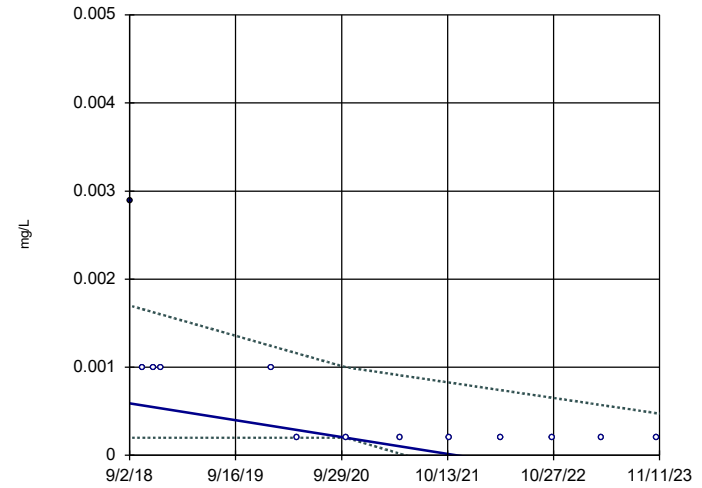
n = 14  
Slope = -0.0001621 units per year.  
Mann-Kendall statistic = -48  
critical = -37  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Cadmium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



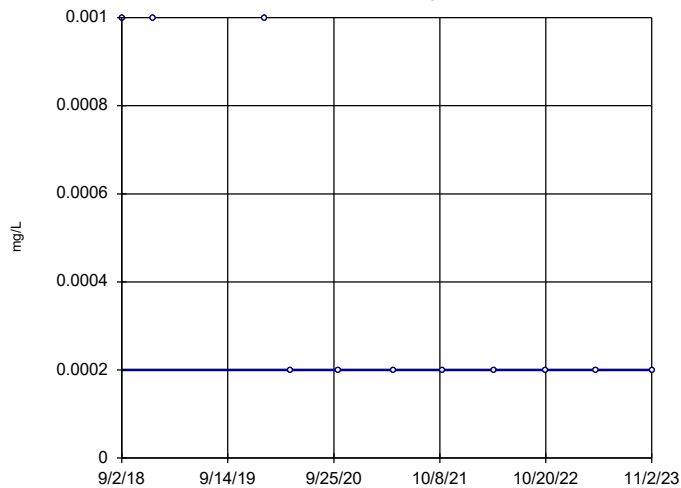
n = 13  
Slope = -0.0001837 units per year.  
Mann-Kendall statistic = -44  
critical = -34  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Cadmium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-9A



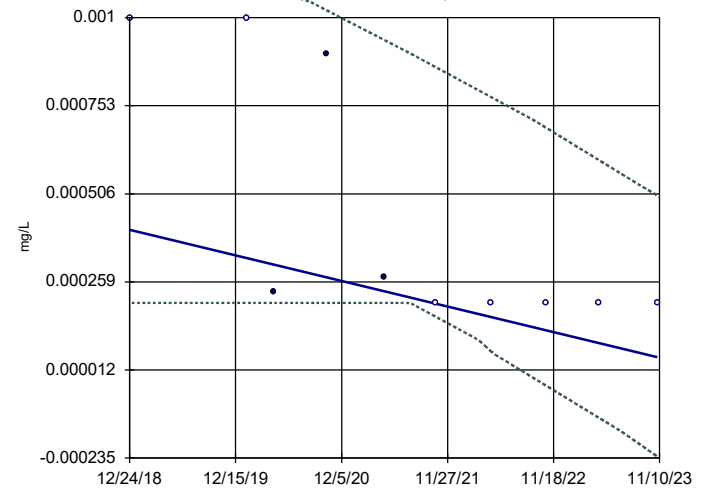
n = 11  
Slope = 0 units per year.  
Mann-Kendall statistic = -24  
critical = -27  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Cadmium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-10A



n = 10  
Slope = -0.00007341 units per year.  
Mann-Kendall statistic = -30  
critical = -23  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Cadmium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	<0.001	0.0002	0.001356
10/24/2018	<0.001	0.0002	0.001329
11/27/2018	<0.001	0.0002	0.001311
12/24/2018	<0.001	0.0002	0.001297
8/13/2019	<0.001	0.0002	0.001177
1/22/2020	<0.001	0.0002	0.001093
4/23/2020	<0.0002	0.0002	0.001045
10/14/2020	<0.0002	0.0001522	0.001
4/27/2021	<0.0002	0.00004505	0.001
10/18/2021	<0.0002	-0.00005055	0.001
4/19/2022	<0.0002	-0.0001511	0.001
10/19/2022	<0.0002	-0.0002516	0.001
4/18/2023	<0.0002	-0.0003511	0.001
11/2/2023	<0.0002	-0.0004599	0.001

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
7/29/2018	<0.01 (o)		
9/2/2018	0.00289	0.0002	0.001701
10/19/2018	<0.001	0.0002	0.001659
11/27/2018	<0.001	0.0002	0.001623
12/24/2018	<0.001	0.0002	0.001599
1/22/2020	<0.001	0.0002	0.001241
4/23/2020	<0.0002	0.0002	0.001158
10/14/2020	<0.0002	0.0002	0.001
4/27/2021	<0.0002	0.00001819	0.0009085
10/20/2021	<0.0002	-0.0001459	0.000826
4/21/2022	<0.0002	-0.0003165	0.0007401
10/24/2022	<0.0002	-0.0004899	0.0006529
4/18/2023	<0.0002	-0.000654	0.0005703
11/2/2023	<0.0002	-0.0008386	0.0004774

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

## MW-9A

1/6/2018	<0.01 (o)
3/3/2018	<0.01 (o)
4/14/2018	<0.01 (o)
5/26/2018	<0.01 (o)
6/23/2018	<0.01 (o)
7/29/2018	<0.01 (o)
9/2/2018	<0.001
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	<0.0002
4/27/2021	<0.0002
10/19/2021	<0.0002
4/19/2022	<0.0002
10/19/2022	<0.0002
4/18/2023	<0.0002
11/2/2023	<0.0002

# Sen's Slope Estimator

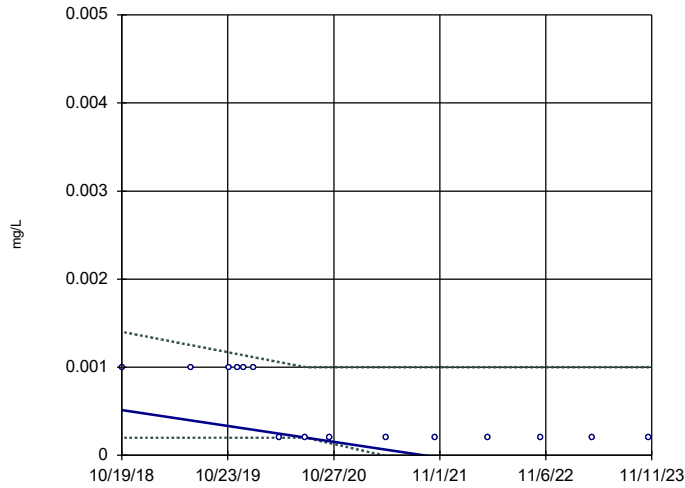
Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A	LCL	UCL
1/6/2018	<0.01 (o)		
3/3/2018	<0.01 (o)		
4/14/2018	<0.01 (o)		
5/26/2018	<0.01 (o)		
6/23/2018	<0.01 (o)		
12/24/2018	<0.001	0.0002	0.00127
1/22/2020	<0.001	0.0002	0.001115
4/23/2020	0.00023 (J)	0.0002	0.001079
10/14/2020	0.0009 (J)	0.0002	0.001022
4/27/2021	0.000272 (J)	0.0002	0.0009378
10/20/2021	<0.0002	0.0001603	0.0008603
4/20/2022	<0.0002	0.00006567	0.0007782
10/24/2022	<0.0002	-0.00003198	0.0006914
4/18/2023	<0.0002	-0.0001213	0.0006014
11/2/2023	<0.0002	-0.0002307	0.0005017

### Sen's Slope and 95% Confidence Band

MW-11A



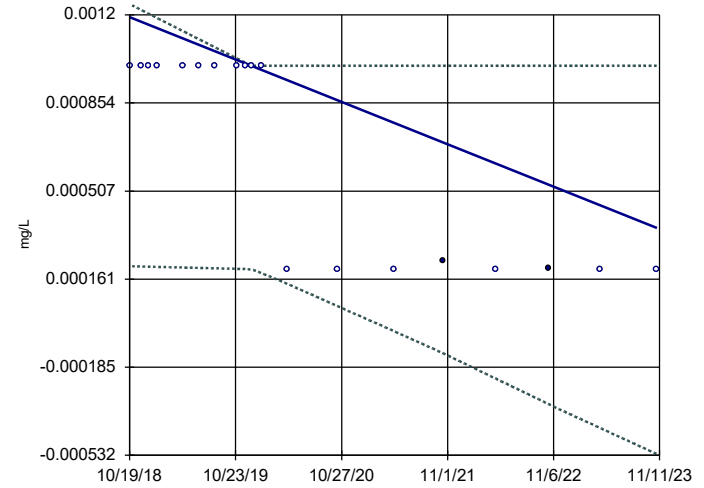
n = 15  
Slope = -0.0001778  
units per year.  
Mann-Kendall  
statistic = -54  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cadmium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



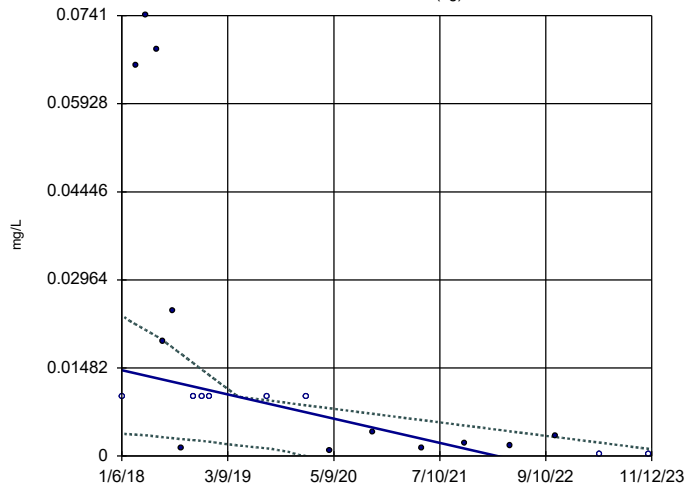
n = 19  
Slope = -0.0001646  
units per year.  
Mann-Kendall  
statistic = -87  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cadmium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



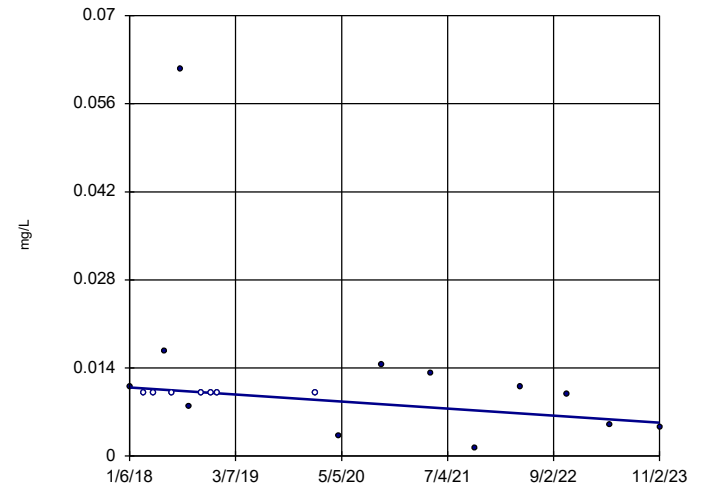
n = 20  
Slope = -0.003489  
units per year.  
Mann-Kendall  
statistic = -118  
critical = -62  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-8A



n = 19  
Slope = -0.0009629  
units per year.  
Mann-Kendall  
statistic = -51  
critical = -58  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Chromium Analysis Run 1/23/2024 12:01 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001402
6/18/2019	<0.001	0.0002	0.00125
10/29/2019	<0.001	0.0002	0.001167
11/29/2019	<0.001	0.0002	0.001148
12/18/2019	<0.001	0.0002	0.001136
1/22/2020	<0.001	0.0002	0.001114
4/23/2020	<0.0002	0.0002	0.001056
7/22/2020	<0.0002	0.0002	0.001
10/14/2020	<0.0002	0.0001381	0.001
4/27/2021	<0.0002	-0.000005714	0.001
10/18/2021	<0.0002	-0.000134	0.001
4/19/2022	<0.0002	-0.0002689	0.001
10/18/2022	<0.0002	-0.0004031	0.001
4/18/2023	<0.0002	-0.0005373	0.001
11/2/2023	<0.0002	-0.0006833	0.001

# Sen's Slope Estimator

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	<0.001	0.0002117	0.001242
11/27/2018	<0.001	0.0002107	0.00122
12/24/2018	<0.001	0.0002099	0.001205
1/22/2019	<0.001	0.0002091	0.001188
4/22/2019	<0.001	0.0002066	0.001137
6/18/2019	<0.001	0.0002051	0.001104
8/13/2019	<0.001	0.0002035	0.001072
10/29/2019	<0.001	0.0002014	0.001029
11/29/2019	<0.001	0.0002005	0.001011
12/18/2019	<0.001	0.0002	0.001
1/22/2020	<0.001	0.0001845	0.001
4/23/2020	<0.0002	0.0001415	0.001
10/13/2020	<0.0002	0.00005509	0.001
4/27/2021	<0.0002	-0.00004331	0.001
10/18/2021	0.000234 (J)	-0.0001313	0.001
4/18/2022	<0.0002	-0.0002299	0.001
10/18/2022	0.000205 (J)	-0.0003296	0.001
4/17/2023	<0.0002	-0.0004242	0.001
11/2/2023	<0.0002	-0.0005272	0.001



# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.003753	0.02368
3/3/2018	0.0657	0.003606	0.02217
4/14/2018	0.0741	0.003492	0.02117
5/26/2018	0.0685	0.0033	0.02017
6/23/2018	0.0193	0.003172	0.0194
7/29/2018	0.0244	0.003008	0.01827
9/2/2018	0.00131	0.002865	0.01717
10/24/2018	<0.01	0.002671	0.01555
11/27/2018	<0.01	0.00255	0.01448
12/24/2018	<0.01	0.002417	0.01363
8/13/2019	<0.01	0.001284	0.009406
1/22/2020	<0.01	-0.00005777	0.008525
4/23/2020	0.000977 (J)	-0.001781	0.008036
10/14/2020	0.00411	-0.005948	0.007107
4/27/2021	0.00133 (J)	-0.01085	0.00607
10/18/2021	0.00211 (J)	-0.01703	0.005144
4/19/2022	0.0017 (J)	-0.02352	0.004171
10/19/2022	0.00335 (J)	-0.0295	0.003201
4/18/2023	<0.0004	-0.03542	0.002252
11/2/2023	<0.0004	-0.0419	0.001201

# Sen's Slope Estimator

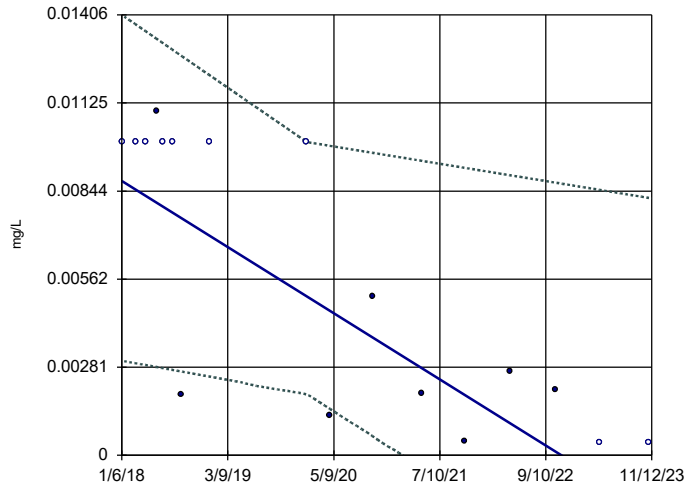
Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A
1/6/2018	0.0111
3/3/2018	<0.01
4/14/2018	<0.01
5/26/2018	0.0167
6/23/2018	<0.01
7/29/2018	0.0615
9/2/2018	0.00783
10/19/2018	<0.01
11/27/2018	<0.01
12/24/2018	<0.01
1/22/2020	<0.01
4/23/2020	0.00323 (J)
10/14/2020	0.0146
4/27/2021	0.0131
10/20/2021	0.00118 (J)
4/21/2022	0.0111
10/24/2022	0.00993
4/18/2023	0.00501
11/2/2023	0.00465

### Sen's Slope and 95% Confidence Band

MW-9A

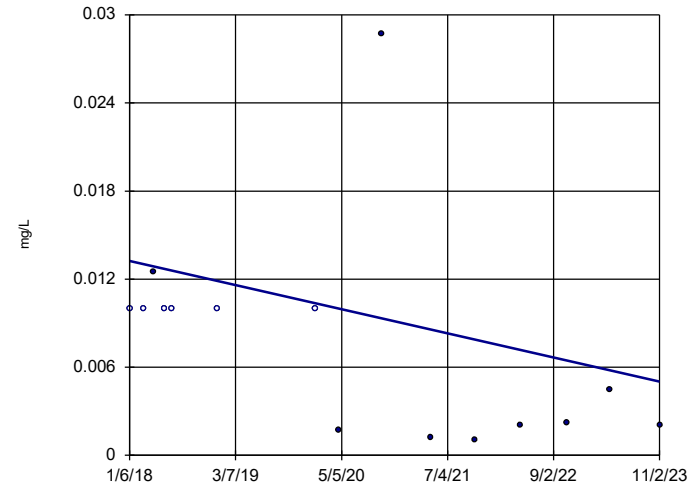


Constituent: Chromium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A

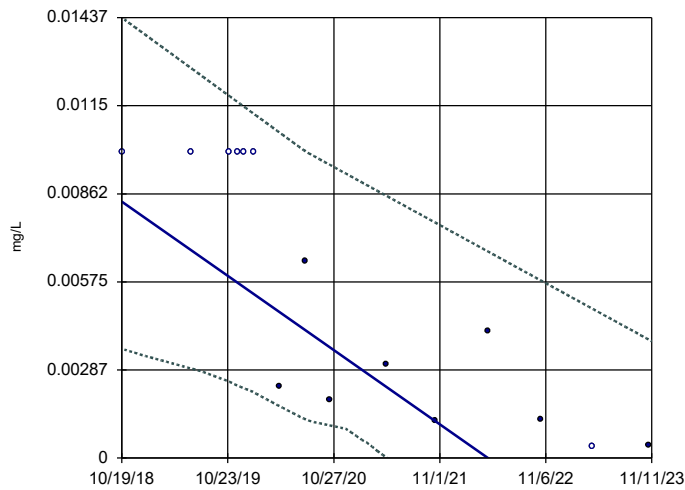


Constituent: Chromium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A

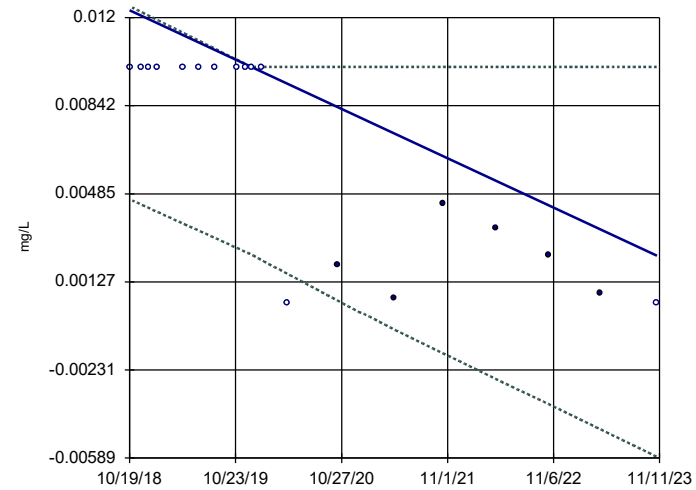


Constituent: Chromium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



Constituent: Chromium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.003019	0.01406
3/3/2018	<0.01	0.002939	0.01376
4/14/2018	<0.01	0.002879	0.01353
5/26/2018	0.011	0.002819	0.0133
6/23/2018	<0.01	0.002779	0.01315
7/29/2018	<0.01	0.002728	0.01295
9/2/2018	0.00195	0.002678	0.01276
12/24/2018	<0.01	0.002517	0.01214
1/22/2020	<0.01	0.00195	0.01
4/23/2020	0.00126 (J)	0.001487	0.009881
10/14/2020	0.00507	0.0006035	0.009656
4/27/2021	0.00196 (J)	-0.0003793	0.009404
10/19/2021	0.000462 (J)	-0.001281	0.009178
4/19/2022	0.00267 (J)	-0.00218	0.008942
10/19/2022	0.00208 (J)	-0.003176	0.008706
4/18/2023	<0.0004	-0.004113	0.008472
11/2/2023	<0.0004	-0.00513	0.008216

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	0.0125
5/26/2018	<0.01
6/23/2018	<0.01
12/24/2018	<0.01
1/22/2020	<0.01
4/23/2020	0.00169 (J)
10/14/2020	0.0287
4/27/2021	0.00124 (J)
10/20/2021	0.00104 (J)
4/20/2022	0.00201 (J)
10/24/2022	0.00223 (J)
4/18/2023	0.00443
11/2/2023	0.00206 (J)

# Sen's Slope Estimator

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.01	0.003563	0.01437
6/18/2019	<0.01	0.002923	0.01273
10/29/2019	<0.01	0.002495	0.01182
11/29/2019	<0.01	0.002352	0.01161
12/18/2019	<0.01	0.002283	0.01148
1/22/2020	<0.01	0.002147	0.01124
4/23/2020	0.00236 (J)	0.001687	0.01061
7/22/2020	0.00644	0.00125	0.01
10/14/2020	0.0019 (J)	0.001066	0.009569
4/27/2021	0.00306 (J)	0.00003453	0.00857
10/18/2021	0.00121 (J)	-0.0009742	0.007678
4/19/2022	0.00416	-0.00209	0.00674
10/18/2022	0.00125 (J)	-0.003382	0.005807
4/18/2023	<0.0004	-0.004712	0.004874
11/2/2023	0.000405 (J)	-0.006061	0.003859

# Sen's Slope Estimator

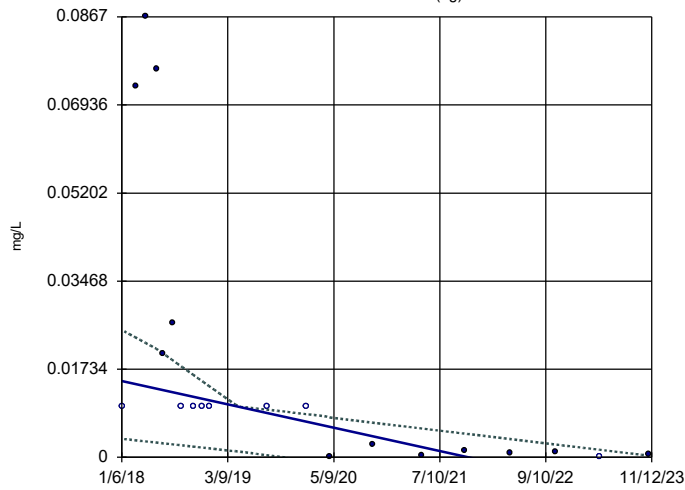
Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	<0.01	0.004622	0.01247
11/27/2018	<0.01	0.004416	0.01224
12/24/2018	<0.01	0.004274	0.01208
1/22/2019	<0.01	0.004121	0.01191
4/22/2019	<0.01	0.003646	0.01139
6/18/2019	<0.01	0.003345	0.01106
8/13/2019	<0.01	0.00305	0.01074
10/29/2019	<0.01	0.002644	0.01029
11/29/2019	<0.01	0.00248	0.01011
12/18/2019	<0.01	0.00238	0.01
1/22/2020	<0.01	0.002156	0.01
4/23/2020	<0.0004	0.001589	0.01
10/13/2020	0.00198 (J)	0.0005123	0.01
4/27/2021	0.00059 (J)	-0.0006519	0.01
10/18/2021	0.00447	-0.001645	0.01
4/18/2022	0.00344 (J)	-0.002671	0.01
10/18/2022	0.00238 (J)	-0.003684	0.01
4/17/2023	0.000811 (J)	-0.004709	0.01
11/2/2023	<0.0004	-0.005836	0.01

### Sen's Slope and 95% Confidence Band

MW-6A (bg)

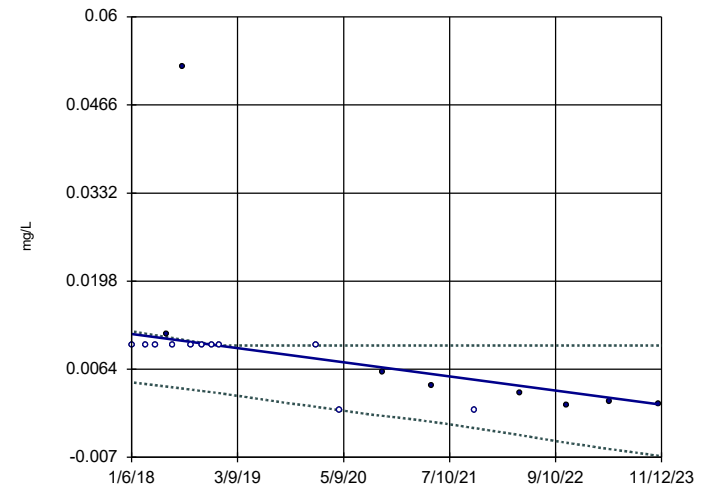


n = 20  
Slope = -0.003929  
units per year.  
Mann-Kendall  
statistic = -129  
critical = -62  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A

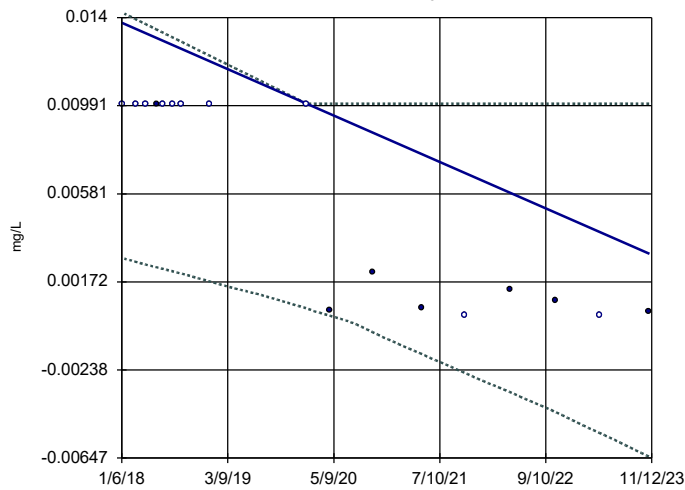


n = 19  
Slope = -0.001841  
units per year.  
Mann-Kendall  
statistic = -94  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-9A

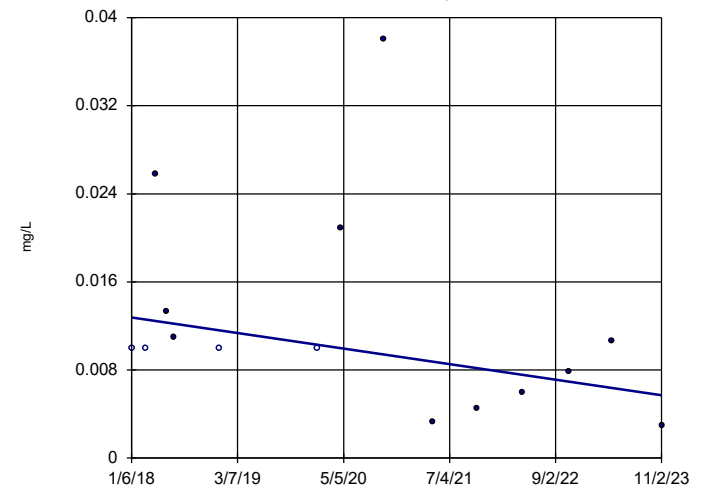


n = 17  
Slope = -0.001844  
units per year.  
Mann-Kendall  
statistic = -79  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



n = 15  
Slope = -0.001212  
units per year.  
Mann-Kendall  
statistic = -31  
critical = -41  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Cobalt Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.003642	0.02512
3/3/2018	0.073	0.003345	0.02358
4/14/2018	0.0867	0.003122	0.02246
5/26/2018	0.0764	0.0029	0.02135
6/23/2018	0.0205	0.002751	0.02039
7/29/2018	0.0264	0.00256	0.01914
9/2/2018	<0.01	0.002375	0.01793
10/24/2018	<0.01	0.002099	0.01613
11/27/2018	<0.01	0.001918	0.01495
12/24/2018	<0.01	0.001775	0.01402
8/13/2019	<0.01	0.0004309	0.009392
1/22/2020	<0.01	-0.00078	0.008491
4/23/2020	0.000235 (J)	-0.002609	0.007848
10/14/2020	0.0025 (J)	-0.006461	0.006824
4/27/2021	0.000278 (J)	-0.0133	0.005686
10/18/2021	0.00123 (J)	-0.02038	0.00467
4/19/2022	0.000795 (J)	-0.02708	0.003602
10/19/2022	0.00116 (J)	-0.03371	0.002533
4/18/2023	<0.0002	-0.04027	0.001476
11/2/2023	0.000708 (J)	-0.04792	0.0003205

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.004417	0.01216
3/3/2018	<0.01	0.004155	0.01182
4/14/2018	<0.01	0.003959	0.01156
5/26/2018	0.0117	0.003762	0.0113
6/23/2018	<0.01	0.003631	0.01113
7/29/2018	0.0524	0.003463	0.01091
9/2/2018	<0.01	0.003299	0.01069
10/19/2018	<0.01	0.003079	0.01041
11/27/2018	<0.01	0.002896	0.01017
12/24/2018	<0.01	0.00277	0.01
1/22/2020	<0.01	0.0006673	0.01
4/23/2020	<0.0002	0.0001763	0.01
10/14/2020	0.00589	-0.0006923	0.01
4/27/2021	0.00401 (J)	-0.001588	0.01
10/20/2021	<0.0002	-0.00256	0.01
4/21/2022	0.00277 (J)	-0.003625	0.01
10/24/2022	0.000986 (J)	-0.004784	0.01
4/18/2023	0.00142 (J)	-0.005753	0.01
11/2/2023	0.00105 (J)	-0.006776	0.01

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.00283	0.01425
3/3/2018	<0.01	0.002652	0.01393
4/14/2018	<0.01	0.002519	0.01369
5/26/2018	0.01	0.002397	0.01345
6/23/2018	<0.01	0.002316	0.01329
7/29/2018	<0.01	0.002211	0.01309
9/2/2018	<0.01	0.002109	0.01289
12/24/2018	<0.01	0.001744	0.01224
1/22/2020	<0.01	0.000489	0.01
4/23/2020	0.000419 (J)	0.0001454	0.01
10/14/2020	0.00217 (J)	-0.0006236	0.01
4/27/2021	0.000489 (J)	-0.001625	0.01
10/19/2021	<0.0002	-0.002517	0.01
4/19/2022	0.00139 (J)	-0.003407	0.01
10/19/2022	0.000853 (J)	-0.004326	0.01
4/18/2023	<0.0002	-0.005318	0.01
11/2/2023	0.000345 (J)	-0.006415	0.01

# Sen's Slope Estimator

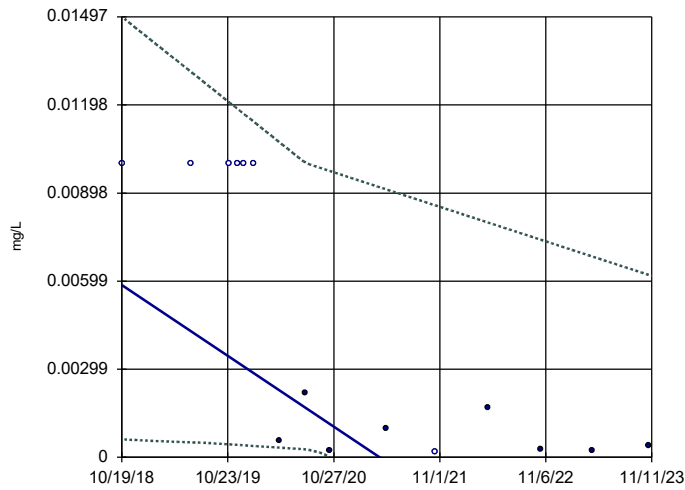
Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	0.0258
5/26/2018	0.0133
6/23/2018	0.011
12/24/2018	<0.01
1/22/2020	<0.01
4/23/2020	0.0209
10/14/2020	0.0381
4/27/2021	0.00325 (J)
10/20/2021	0.00449 (J)
4/20/2022	0.00595
10/24/2022	0.00788
4/18/2023	0.0106
11/2/2023	0.00294 (J)

### Sen's Slope and 95% Confidence Band

MW-11A

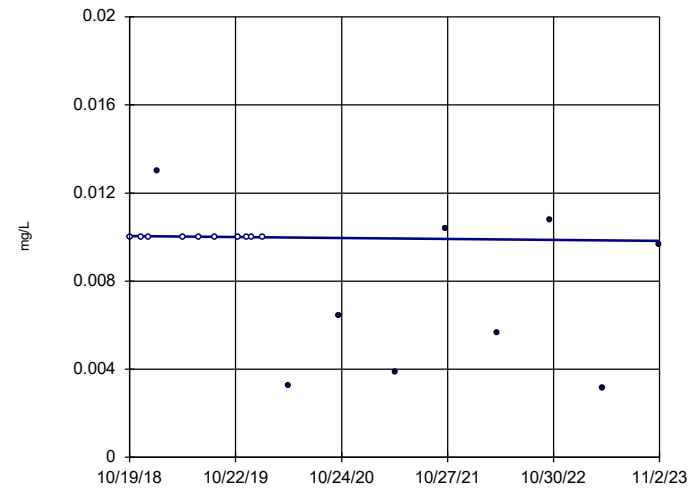


n = 15  
Slope = -0.002376 units per year.  
Mann-Kendall statistic = -62  
critical = -41  
Decreasing trend significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Cobalt Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-12A

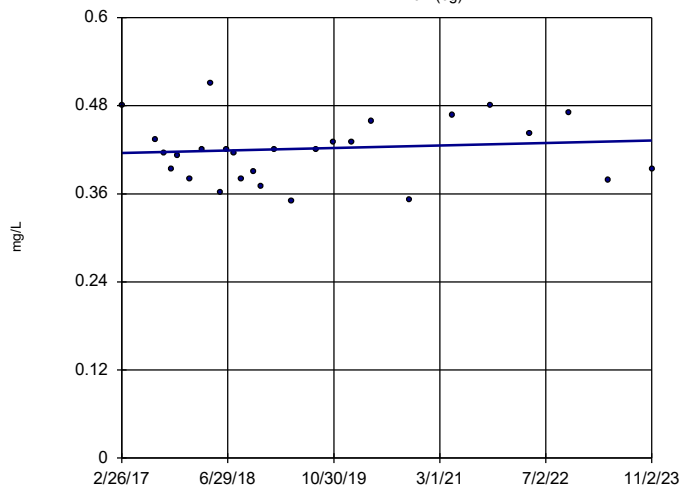


n = 19  
Slope = -0.00004357 units per year.  
Mann-Kendall statistic = -46  
critical = -58  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Cobalt Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-6A (bg)

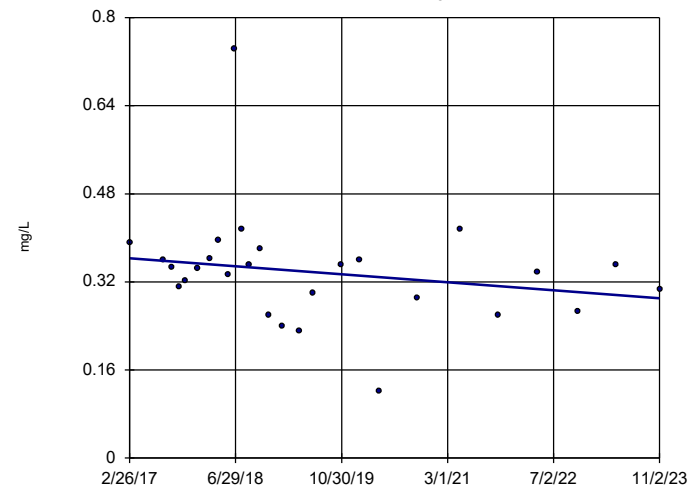


n = 27  
Slope = 0.0026 units per year.  
Mann-Kendall statistic = 23  
critical = 96  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Fluoride Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-8A



n = 27  
Slope = -0.01094 units per year.  
Mann-Kendall statistic = -78  
critical = -96  
Trend not significant at 95% confidence level ( $\alpha = 0.025$  per tail).

Constituent: Fluoride Analysis Run 1/23/2024 12:02 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.01	0.0006112	0.01497
6/18/2019	<0.01	0.0005103	0.0131
10/29/2019	<0.01	0.0004405	0.01207
11/29/2019	<0.01	0.0004207	0.01183
12/18/2019	<0.01	0.0004086	0.01168
1/22/2020	<0.01	0.0003863	0.01141
4/23/2020	0.000556 (J)	0.0003282	0.0107
7/22/2020	0.00218 (J)	0.00027	0.01
10/14/2020	0.000225 (J)	-0.000009356	0.009733
4/27/2021	0.00097 (J)	-0.001275	0.009114
10/18/2021	<0.0002	-0.002482	0.008562
4/19/2022	0.00168 (J)	-0.003947	0.007981
10/18/2022	0.00027 (J)	-0.005468	0.007403
4/18/2023	0.000209 (J)	-0.007035	0.006825
11/2/2023	0.000383 (J)	-0.008634	0.006197

# Sen's Slope Estimator

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A
10/19/2018	<0.01
11/27/2018	<0.01
12/24/2018	<0.01
1/22/2019	0.013
4/22/2019	<0.01
6/18/2019	<0.01
8/13/2019	<0.01
10/29/2019	<0.01
11/29/2019	<0.01
12/18/2019	<0.01
1/22/2020	<0.01
4/23/2020	0.00326 (J)
10/13/2020	0.00644
4/27/2021	0.00387 (J)
10/18/2021	0.0104
4/18/2022	0.00567
10/18/2022	0.0108
4/17/2023	0.00313 (J)
11/2/2023	0.00969

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)
2/26/2017	0.48
7/29/2017	0.433
9/10/2017	0.415
10/14/2017	0.394
11/11/2017	0.412
1/6/2018	0.38
3/3/2018	0.42
4/14/2018	0.51
5/26/2018	0.362
6/23/2018	0.42
7/29/2018	0.416
9/2/2018	0.38
10/24/2018	0.39
11/27/2018	0.37
1/29/2019	0.42
4/22/2019	0.35
8/13/2019	0.42
10/29/2019	0.43
1/22/2020	0.43
4/23/2020	0.458
10/14/2020	0.352
4/27/2021	0.467
10/18/2021	0.48
4/19/2022	0.442
10/19/2022	0.471
4/18/2023	0.379
11/2/2023	0.394



# Sen's Slope Estimator

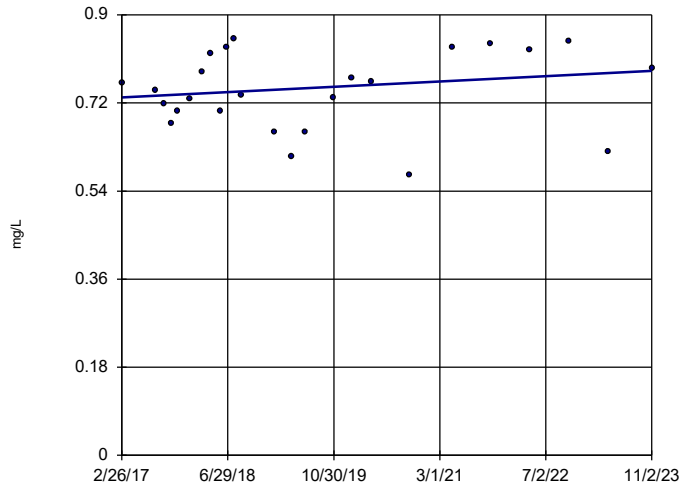
Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A
2/26/2017	0.39
7/29/2017	0.359
9/10/2017	0.346
10/14/2017	0.31
11/11/2017	0.322
1/6/2018	0.344
3/3/2018	0.363
4/14/2018	0.396
5/26/2018	0.333
6/23/2018	0.743
7/29/2018	0.415
9/2/2018	0.352
10/19/2018	0.38
11/27/2018	0.26
1/29/2019	0.24
4/22/2019	0.23
6/18/2019	0.3
10/29/2019	0.35
1/22/2020	0.36
4/23/2020	0.122
10/14/2020	0.29
4/27/2021	0.415
10/20/2021	0.26
4/21/2022	0.337
10/24/2022	0.266
4/18/2023	0.35
11/2/2023	0.307

### Sen's Slope Estimator

MW-9A



n = 25  
 Slope = 0.008165 units per year.  
 Mann-Kendall statistic = 38  
 critical = 85  
 Trend not significant at 95% confidence level (α = 0.025 per tail).

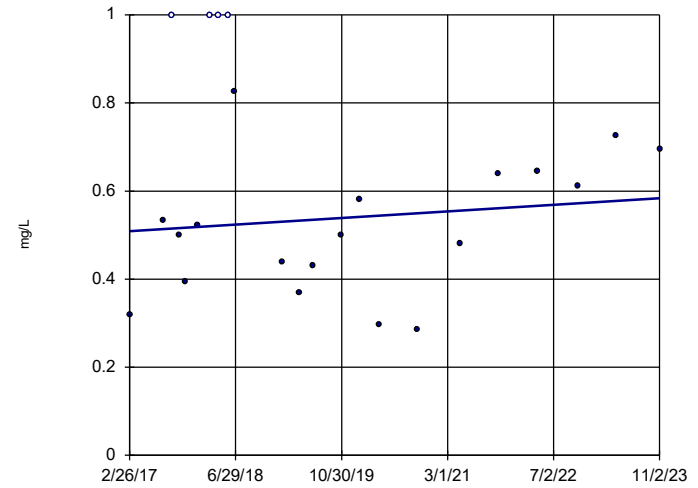
Constituent: Fluoride Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

Hollow symbols indicate censored values.

### Sen's Slope Estimator

MW-10A



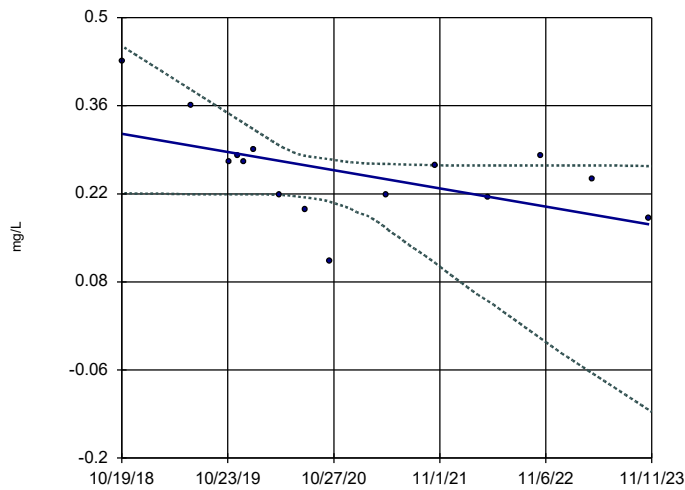
n = 23  
 Slope = 0.01125 units per year.  
 Mann-Kendall statistic = 8  
 critical = 76  
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A



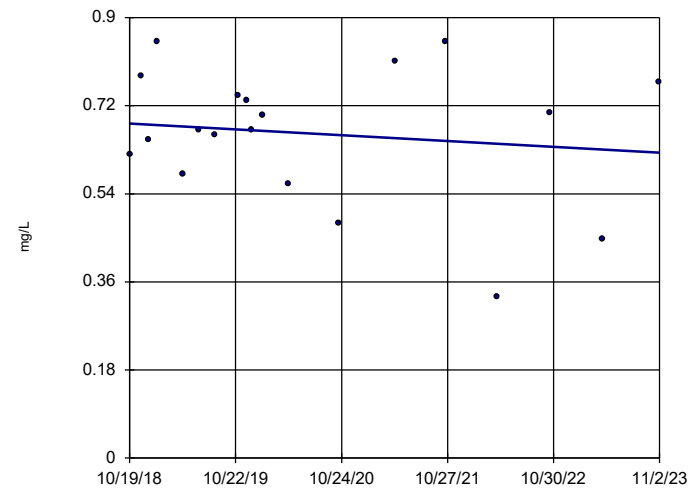
n = 15  
 Slope = -0.02857 units per year.  
 Mann-Kendall statistic = -50  
 critical = -41  
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-12A



n = 19  
 Slope = -0.01177 units per year.  
 Mann-Kendall statistic = -7  
 critical = -58  
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

MW-9A

2/26/2017	0.76
7/29/2017	0.747
9/10/2017	0.717
10/14/2017	0.679
11/11/2017	0.703
1/6/2018	0.729
3/3/2018	0.784
4/14/2018	0.822
5/26/2018	0.702
6/23/2018	0.834
7/29/2018	0.85
9/2/2018	0.735
1/30/2019	0.66
4/22/2019	0.61
6/18/2019	0.66
10/29/2019	0.73
1/22/2020	0.77
4/23/2020	0.763
10/14/2020	0.574
4/27/2021	0.834
10/19/2021	0.842
4/19/2022	0.828
10/19/2022	0.846
4/18/2023	0.62
11/2/2023	0.792

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

MW-10A

2/26/2017	0.32
7/29/2017	0.533
9/10/2017	<1
10/14/2017	0.5
11/11/2017	0.394
1/6/2018	0.522
3/3/2018	<1
4/14/2018	<1
5/26/2018	<1
6/23/2018	0.826
1/30/2019	0.44
4/22/2019	0.37
6/18/2019	0.43
10/29/2019	0.5
1/22/2020	0.58
4/23/2020	0.296
10/14/2020	0.285 (J)
4/27/2021	0.48
10/20/2021	0.64
4/20/2022	0.646
10/24/2022	0.611
4/18/2023	0.727
11/2/2023	0.696

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	0.43	0.221	0.455
6/18/2019	0.36	0.2193	0.3853
10/29/2019	0.27	0.219	0.3469
11/29/2019	0.28	0.219	0.338
12/18/2019	0.27	0.219	0.3325
1/22/2020	0.29	0.219	0.3224
4/23/2020	0.219	0.2183	0.296
7/22/2020	0.195	0.214	0.28
10/14/2020	0.113	0.2072	0.2749
4/27/2021	0.219	0.1656	0.2676
10/18/2021	0.265	0.1097	0.2655
4/19/2022	0.214	0.04942	0.265
10/18/2022	0.28	-0.009338	0.265
4/18/2023	0.243	-0.06524	0.265
11/2/2023	0.182	-0.1239	0.2641

# Sen's Slope Estimator

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:12 PM

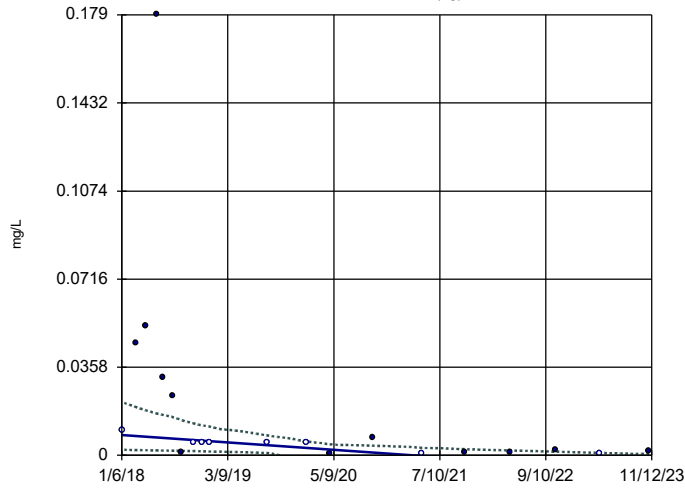
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

MW-12A

10/19/2018	0.62
11/27/2018	0.78
12/24/2018	0.65
1/22/2019	0.85
4/22/2019	0.58
6/18/2019	0.67
8/13/2019	0.66
10/29/2019	0.74
11/29/2019	0.73
12/18/2019	0.67
1/22/2020	0.7
4/23/2020	0.56
10/13/2020	0.481 (J)
4/27/2021	0.811
10/18/2021	0.85
4/18/2022	0.33 (J)
10/18/2022	0.705
4/17/2023	0.448
11/2/2023	0.769

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



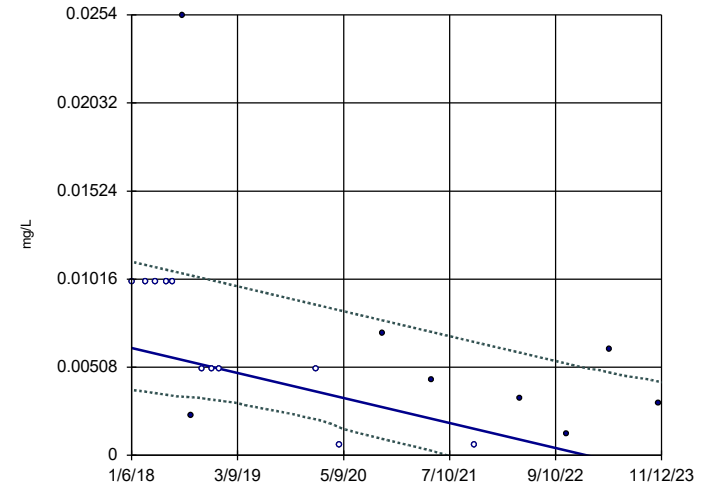
n = 20  
Slope = -0.002568  
units per year.  
Mann-Kendall  
statistic = -105  
critical = -62  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



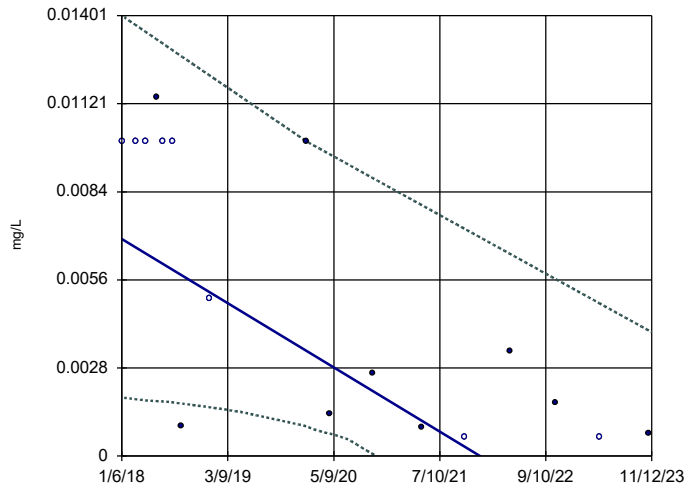
n = 19  
Slope = -0.001231  
units per year.  
Mann-Kendall  
statistic = -82  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-9A



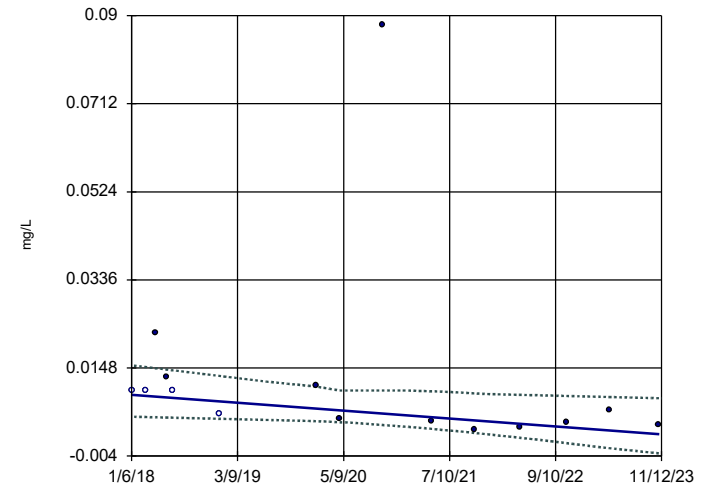
n = 17  
Slope = -0.001746  
units per year.  
Mann-Kendall  
statistic = -80  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-10A



n = 15  
Slope = -0.001441  
units per year.  
Mann-Kendall  
statistic = -48  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.002248	0.02166
3/3/2018	0.0456	0.002145	0.01967
4/14/2018	0.0525	0.002068	0.01825
5/26/2018	0.179	0.00199	0.01703
6/23/2018	0.0317	0.001942	0.01638
7/29/2018	0.0242	0.001881	0.01558
9/2/2018	0.00106	0.001821	0.01439
10/24/2018	<0.005	0.001726	0.01298
11/27/2018	<0.005	0.001638	0.01215
12/24/2018	<0.005	0.001566	0.01173
8/13/2019	<0.005	0.0009427	0.008121
1/22/2020	<0.005	-0.003291	0.005561
4/23/2020	0.000869 (J)	-0.006075	0.004524
10/14/2020	0.00702	-0.01128	0.00393
4/27/2021	<0.0006	-0.01712	0.003055
10/18/2021	0.00134 (J)	-0.02251	0.002493
4/19/2022	0.00111 (J)	-0.02812	0.001991
10/19/2022	0.00245	-0.03374	0.001489
4/18/2023	<0.0006	-0.03929	0.0009916
11/2/2023	0.00152 (J)	-0.04536	0.0005202



# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.003776	0.01117
3/3/2018	<0.01	0.00367	0.01098
4/14/2018	<0.01	0.003581	0.01084
5/26/2018	<0.01	0.003491	0.0107
6/23/2018	<0.01	0.003432	0.01061
7/29/2018	0.0254	0.003378	0.01049
9/2/2018	0.00232	0.003352	0.01037
10/19/2018	<0.005	0.003285	0.01022
11/27/2018	<0.005	0.003208	0.01009
12/24/2018	<0.005	0.003155	0.01
1/22/2020	<0.005	0.002063	0.008673
4/23/2020	<0.0006	0.001605	0.008364
10/14/2020	0.00706	0.0009405	0.007778
4/27/2021	0.00437	0.0002592	0.007121
10/20/2021	<0.0006	-0.0006011	0.006529
4/21/2022	0.00327	-0.001595	0.005918
10/24/2022	0.00122 (J)	-0.002586	0.005293
4/18/2023	0.00615	-0.00354	0.004771
11/2/2023	0.00304	-0.004625	0.004243

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	<0.01	0.001863	0.01401
3/3/2018	<0.01	0.001809	0.01371
4/14/2018	<0.01	0.001769	0.01348
5/26/2018	0.0114	0.001749	0.01326
6/23/2018	<0.01	0.001739	0.01311
7/29/2018	<0.01	0.00171	0.01291
9/2/2018	0.00095	0.001674	0.01272
12/24/2018	<0.005	0.001556	0.01212
1/22/2020	0.01	0.00095	0.01
4/23/2020	0.00135 (J)	0.0007187	0.009599
10/14/2020	0.00263	0.00006486	0.00884
4/27/2021	0.000899 (J)	-0.0009052	0.00799
10/19/2021	<0.0006	-0.001776	0.007227
4/19/2022	0.00334	-0.002631	0.006434
10/19/2022	0.0017 (J)	-0.00354	0.005636
4/18/2023	<0.0006	-0.004358	0.004847
11/2/2023	0.000731 (J)	-0.005401	0.003983

# Sen's Slope Estimator

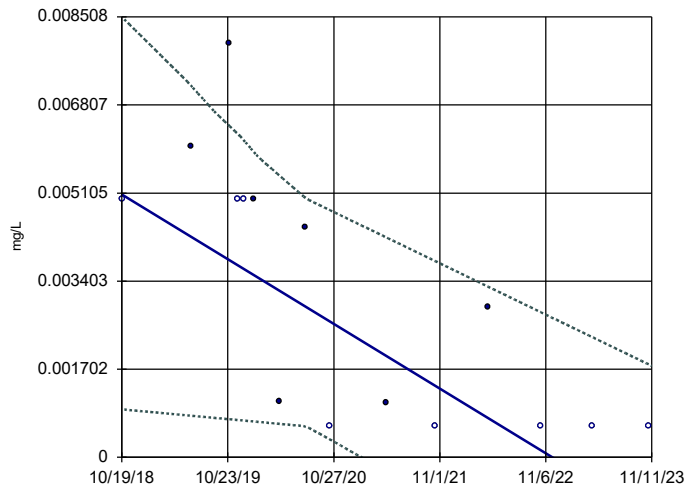
Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A	LCL	UCL
1/6/2018	<0.01	0.004408	0.01537
3/3/2018	<0.01	0.004336	0.01501
4/14/2018	0.0222	0.004283	0.01474
5/26/2018	0.0128	0.004229	0.01447
6/23/2018	<0.01	0.004194	0.01429
12/24/2018	<0.005	0.003959	0.01312
1/22/2020	0.011	0.003435	0.01082
4/23/2020	0.00403	0.0032	0.01
10/14/2020	0.0881	0.002622	0.01
4/27/2021	0.00334	0.001832	0.009832
10/20/2021	0.00172 (J)	0.0009402	0.009381
4/20/2022	0.00208	-0.00009157	0.009074
10/24/2022	0.0032	-0.001244	0.00883
4/18/2023	0.00574	-0.002329	0.008605
11/2/2023	0.00274	-0.003421	0.008352

### Sen's Slope and 95% Confidence Band

MW-11A



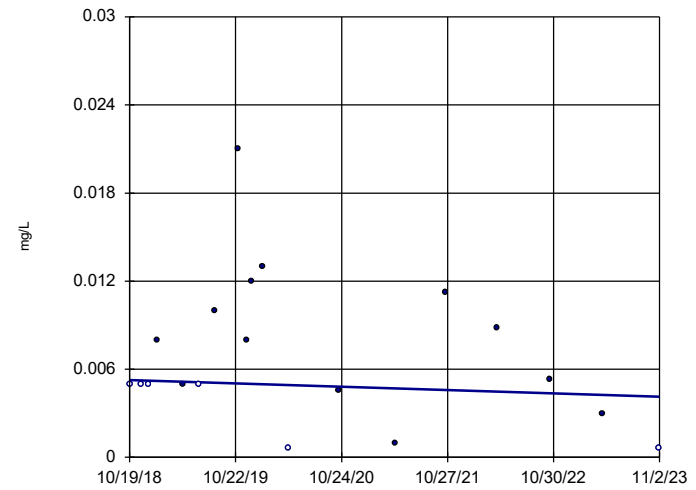
n = 15  
Slope = -0.001233  
units per year.  
Mann-Kendall  
statistic = -71  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-12A



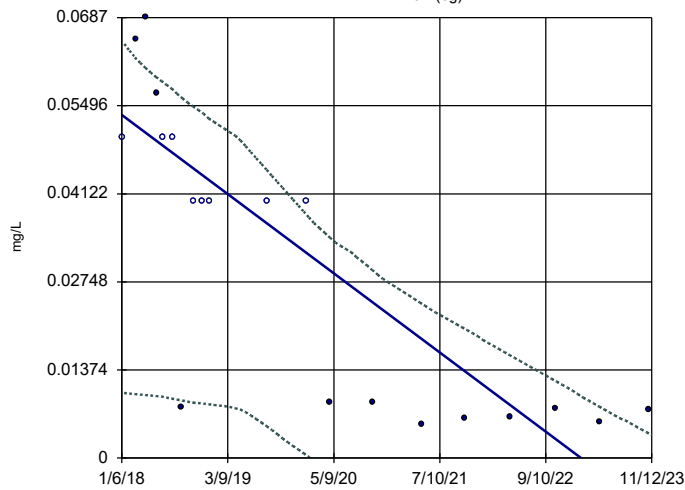
n = 19  
Slope = -0.0002235  
units per year.  
Mann-Kendall  
statistic = -17  
critical = -58  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lead Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



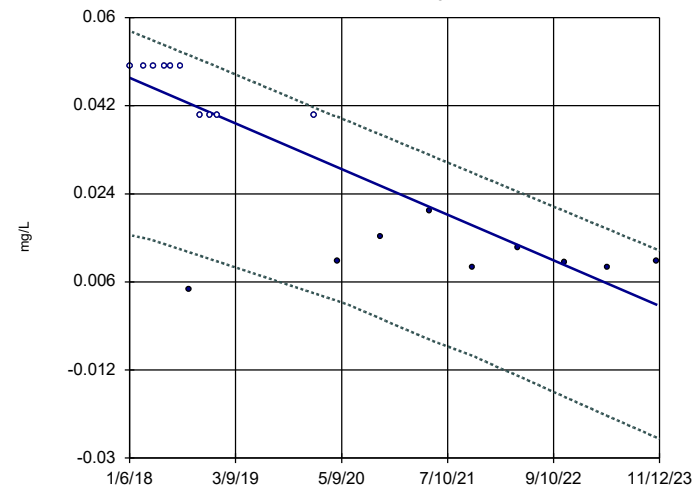
n = 20  
Slope = -0.01056  
units per year.  
Mann-Kendall  
statistic = -133  
critical = -62  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



n = 19  
Slope = -0.007971  
units per year.  
Mann-Kendall  
statistic = -105  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0009268	0.008508
6/18/2019	0.006	0.0008036	0.007177
10/29/2019	0.008	0.0007359	0.006404
11/29/2019	<0.005	0.0007201	0.006241
12/18/2019	<0.005	0.0007105	0.00613
1/22/2020	0.005	0.0006927	0.005903
4/23/2020	0.00107 (J)	0.0006458	0.005434
7/22/2020	0.00444	0.0006	0.005
10/14/2020	<0.0006	0.0003468	0.004775
4/27/2021	0.00106 (J)	-0.0002919	0.004252
10/18/2021	<0.0006	-0.0009358	0.003786
4/19/2022	0.00291	-0.001738	0.003296
10/18/2022	<0.0006	-0.002492	0.002808
4/18/2023	<0.0006	-0.00329	0.00232
11/2/2023	<0.0006	-0.004211	0.00179

# Sen's Slope Estimator

Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A
10/19/2018	<0.005
11/27/2018	<0.005
12/24/2018	<0.005
1/22/2019	0.008
4/22/2019	0.005
6/18/2019	<0.005
8/13/2019	0.01
10/29/2019	0.021
11/29/2019	0.008
12/18/2019	0.012
1/22/2020	0.013
4/23/2020	<0.0006
10/13/2020	0.00458
4/27/2021	0.000997 (J)
10/18/2021	0.0112
4/18/2022	0.00884
10/18/2022	0.00534
4/17/2023	0.00293
11/2/2023	<0.0006

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.05	0.01018	0.06497
3/3/2018	0.0654	0.009974	0.06235
4/14/2018	0.0687	0.009822	0.06078
5/26/2018	0.0569	0.009669	0.05938
6/23/2018	<0.05	0.009529	0.05858
7/29/2018	<0.05	0.009263	0.05754
9/2/2018	0.008	0.009003	0.05631
10/24/2018	<0.04	0.008634	0.05475
11/27/2018	<0.04	0.00851	0.05384
12/24/2018	<0.04	0.008382	0.05292
8/13/2019	<0.04	0.004964	0.04495
1/22/2020	<0.04	0.0003803	0.03789
4/23/2020	0.00865	-0.002247	0.03442
10/14/2020	0.00863	-0.007254	0.02925
4/27/2021	0.00518	-0.01294	0.02412
10/18/2021	0.0063	-0.01802	0.02019
4/19/2022	0.00636	-0.02391	0.01605
10/19/2022	0.00766	-0.02969	0.01205
4/18/2023	0.00555	-0.03729	0.007943
11/2/2023	0.00761	-0.04352	0.00385

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:12 PM

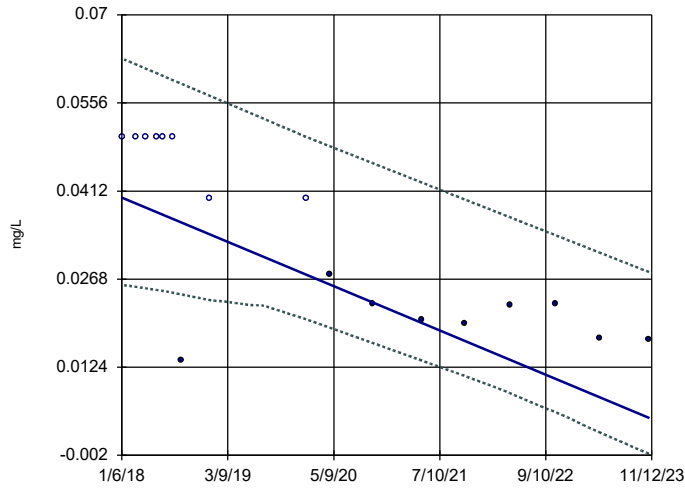
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.05	0.01559	0.05729
3/3/2018	<0.05	0.01498	0.05613
4/14/2018	<0.05	0.01443	0.05526
5/26/2018	<0.05	0.01373	0.05439
6/23/2018	<0.05	0.01327	0.05381
7/29/2018	<0.05	0.01267	0.05306
9/2/2018	0.0044	0.01208	0.05234
10/19/2018	<0.04	0.0113	0.05137
11/27/2018	<0.04	0.01065	0.05056
12/24/2018	<0.04	0.0102	0.05
1/22/2020	<0.04	0.003631	0.04158
4/23/2020	0.0102	0.002097	0.03975
10/14/2020	0.0153	-0.001513	0.03608
4/27/2021	0.0204 (J)	-0.005771	0.03197
10/20/2021	0.00903	-0.009113	0.02826
4/21/2022	0.0129	-0.0132	0.0244
10/24/2022	0.00993	-0.01747	0.02048
4/18/2023	0.00907	-0.02143	0.01677
11/2/2023	0.0102	-0.02584	0.01259



### Sen's Slope and 95% Confidence Band

MW-9A



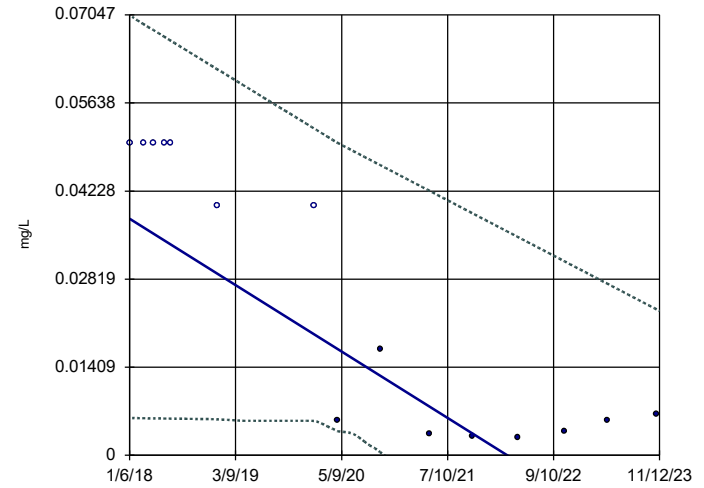
n = 17  
Slope = -0.006186  
units per year.  
Mann-Kendall  
statistic = -89  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-10A



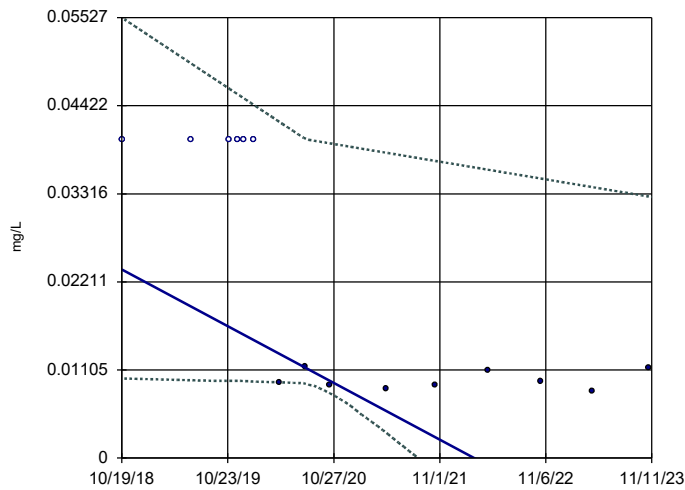
n = 15  
Slope = -0.009078  
units per year.  
Mann-Kendall  
statistic = -64  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A



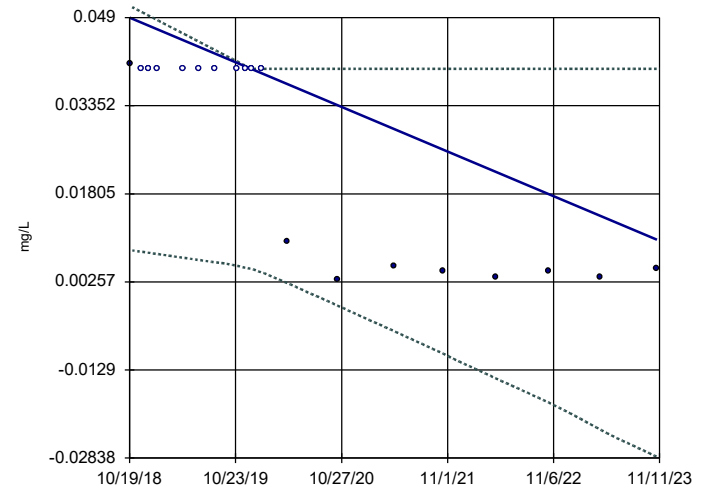
n = 15  
Slope = -0.007027  
units per year.  
Mann-Kendall  
statistic = -54  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



n = 19  
Slope = -0.007741  
units per year.  
Mann-Kendall  
statistic = -102  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Lithium Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	<0.05	0.02583	0.0629
3/3/2018	<0.05	0.02555	0.06193
4/14/2018	<0.05	0.02529	0.0612
5/26/2018	<0.05	0.02504	0.06048
6/23/2018	<0.05	0.02487	0.05999
7/29/2018	<0.05	0.02459	0.05937
9/2/2018	0.0136	0.02431	0.05877
12/24/2018	<0.04	0.02339	0.05681
1/22/2020	<0.04	0.0202	0.05
4/23/2020	0.0275	0.01887	0.04853
10/14/2020	0.0227	0.01635	0.04575
4/27/2021	0.0202	0.01352	0.04263
10/19/2021	0.0195	0.01097	0.03983
4/19/2022	0.0225	0.00818	0.03692
10/19/2022	0.0227	0.005055	0.03399
4/18/2023	0.0172	0.001719	0.0311
11/2/2023	0.0169	-0.001791	0.02793

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A	LCL	UCL
1/6/2018	<0.05	0.005962	0.07047
3/3/2018	<0.05	0.005933	0.069
4/14/2018	<0.05	0.005911	0.06798
5/26/2018	<0.05	0.005889	0.06696
6/23/2018	<0.05	0.005875	0.06628
12/24/2018	<0.04	0.005765	0.06181
1/22/2020	<0.04	0.005507	0.05224
4/23/2020	0.00552	0.00385	0.05
10/14/2020	0.017	0.0004531	0.04639
4/27/2021	0.00346 (J)	-0.005231	0.04235
10/20/2021	0.00311 (J)	-0.01029	0.0387
4/20/2022	0.00292 (J)	-0.01567	0.03493
10/24/2022	0.00385 (J)	-0.02112	0.03105
4/18/2023	0.00553	-0.02625	0.02741
11/2/2023	0.00652	-0.03202	0.0233

# Sen's Slope Estimator

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.04	0.009995	0.05527
6/18/2019	<0.04	0.009771	0.04952
10/29/2019	<0.04	0.00969	0.04635
11/29/2019	<0.04	0.00969	0.04561
12/18/2019	<0.04	0.00967	0.04516
1/22/2020	<0.04	0.009611	0.04433
4/23/2020	0.0094	0.009501	0.04214
7/22/2020	0.0114	0.0094	0.04
10/14/2020	0.00917	0.008127	0.0395
4/27/2021	0.00877	0.00321	0.03833
10/18/2021	0.0092	-0.001627	0.03728
4/19/2022	0.011	-0.006615	0.03618
10/18/2022	0.00969	-0.01153	0.03509
4/18/2023	0.00839	-0.01655	0.034
11/2/2023	0.0113	-0.02207	0.03281

# Sen's Slope Estimator

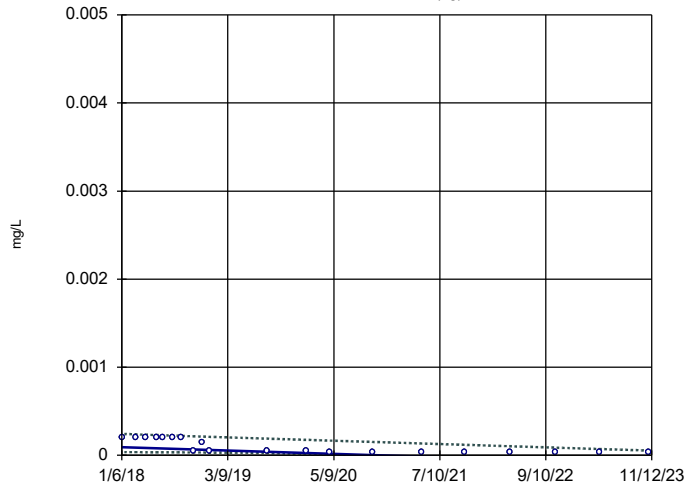
Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	0.041	0.008176	0.05109
11/27/2018	<0.04	0.007893	0.05007
12/24/2018	<0.04	0.007697	0.04936
1/22/2019	<0.04	0.007486	0.04861
4/22/2019	<0.04	0.006833	0.04626
6/18/2019	<0.04	0.006419	0.04477
8/13/2019	<0.04	0.006023	0.04331
10/29/2019	<0.04	0.005408	0.0413
11/29/2019	<0.04	0.005038	0.0405
12/18/2019	<0.04	0.0049	0.04
1/22/2020	<0.04	0.00425	0.04
4/23/2020	0.00975	0.00234	0.04
10/13/2020	0.00301 (J)	-0.001583	0.04
4/27/2021	0.00528	-0.00605	0.04
10/18/2021	0.00444 (J)	-0.01005	0.04
4/18/2022	0.00346 (J)	-0.01435	0.04
10/18/2022	0.00444 (J)	-0.01857	0.04
4/17/2023	0.00346 (J)	-0.02333	0.04
11/2/2023	0.0049 (J)	-0.02816	0.04

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



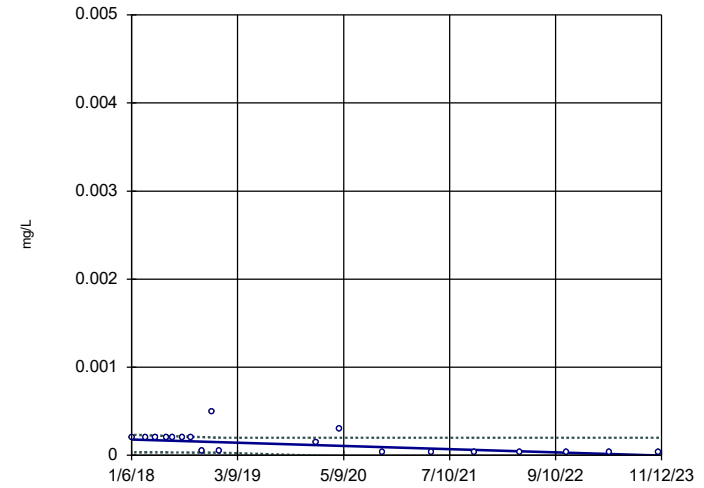
n = 20  
Slope = -0.00003194  
units per year.  
Mann-Kendall  
statistic = -133  
critical = -62  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



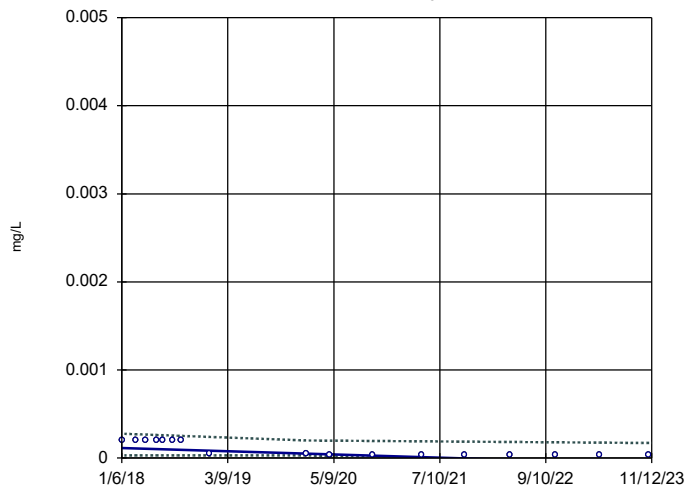
n = 19  
Slope = -0.00003157  
units per year.  
Mann-Kendall  
statistic = -88  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-9A



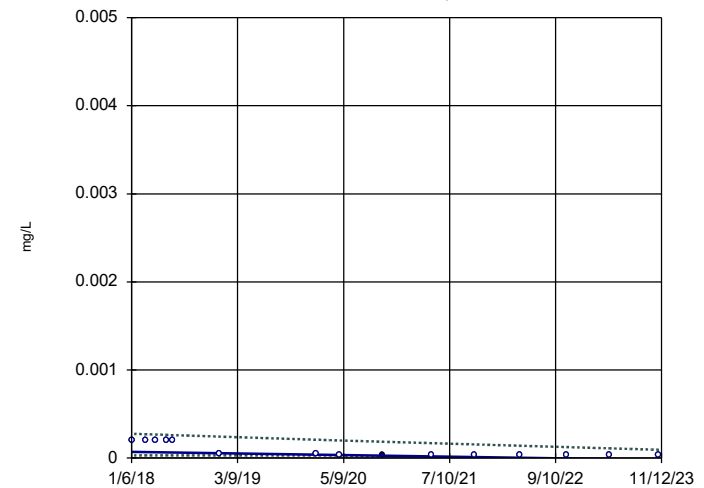
n = 17  
Slope = -0.00003092  
units per year.  
Mann-Kendall  
statistic = -86  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-10A



n = 15  
Slope = -0.00001584  
units per year.  
Mann-Kendall  
statistic = -71  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Mercury Analysis Run 1/23/2024 12:02 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.0002	0.00003661	0.0002438
3/3/2018	<0.0002	0.00003582	0.000238
4/14/2018	<0.0002	0.00003522	0.0002341
5/26/2018	<0.0002	0.00003463	0.00023
6/23/2018	<0.0002	0.00003423	0.0002274
7/29/2018	<0.0002	0.00003373	0.0002241
9/2/2018	<0.0002	0.00003323	0.0002209
10/24/2018	<5E-05	0.0000325	0.0002159
11/27/2018	<0.00015	0.00003202	0.0002128
12/24/2018	<5E-05	0.00003164	0.0002104
8/13/2019	<5E-05	0.000026	0.0001898
1/22/2020	<5E-05	0.00001011	0.0001755
4/23/2020	<3E-05	0.000001515	0.0001674
10/14/2020	<3E-05	-0.00001672	0.000152
4/27/2021	<3E-05	-0.00004063	0.0001348
10/18/2021	<3E-05	-0.00006413	0.0001195
4/19/2022	<3E-05	-0.00008601	0.0001034
10/19/2022	<3E-05	-0.0001093	0.00008723
4/18/2023	<3E-05	-0.0001395	0.00007127
11/2/2023	<3E-05	-0.0001645	0.00005381

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.0002	0.00003515	0.0002337
3/3/2018	<0.0002	0.00003433	0.0002284
4/14/2018	<0.0002	0.00003372	0.0002243
5/26/2018	<0.0002	0.0000331	0.0002203
6/23/2018	<0.0002	0.00003269	0.0002176
7/29/2018	<0.0002	0.00003217	0.0002142
9/2/2018	<0.0002	0.00003165	0.0002108
10/19/2018	<5E-05	0.00003097	0.0002063
11/27/2018	<0.0005	0.0000304	0.0002026
12/24/2018	<5E-05	0.00003	0.0002
1/22/2020	<0.00015	-0.000003726	0.0002
4/23/2020	<0.0003	-0.0000116	0.0002
10/14/2020	<3E-05	-0.00002679	0.0002
4/27/2021	<3E-05	-0.00004396	0.0002
10/20/2021	<3E-05	-0.00005919	0.0002
4/21/2022	<3E-05	-0.00007502	0.0002
10/24/2022	<3E-05	-0.00009228	0.0002
4/18/2023	<3E-05	-0.0001088	0.0002
11/2/2023	<3E-05	-0.0001282	0.0002



# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

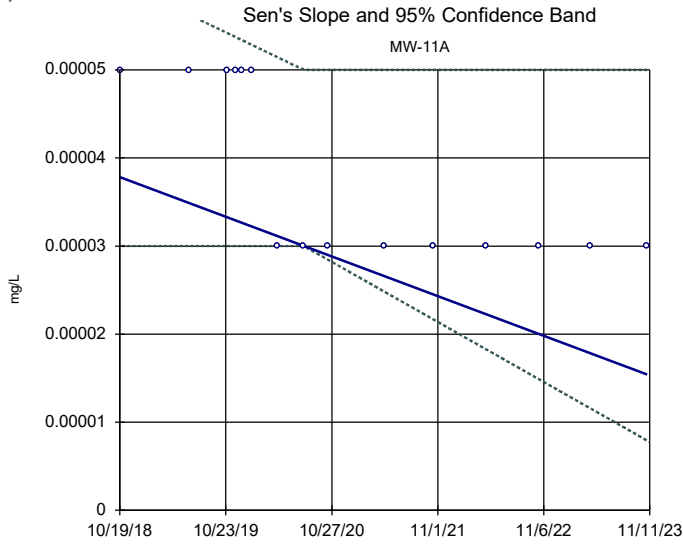
	MW-9A	LCL	UCL
1/6/2018	<0.0002	0.00003	0.0002769
3/3/2018	<0.0002	0.00003	0.0002711
4/14/2018	<0.0002	0.00003	0.0002668
5/26/2018	<0.0002	0.00003	0.0002625
6/23/2018	<0.0002	0.00003	0.0002596
7/29/2018	<0.0002	0.00003	0.0002559
9/2/2018	<0.0002	0.00003	0.0002523
12/24/2018	<5E-05	0.00003	0.0002406
1/22/2020	<5E-05	0.00003	0.0002
4/23/2020	<3E-05	0.00002127	0.0001981
10/14/2020	<3E-05	0.000004754	0.0001945
4/27/2021	<3E-05	-0.00001375	0.0001905
10/19/2021	<3E-05	-0.00003071	0.0001868
4/19/2022	<3E-05	-0.00004808	0.0001831
10/19/2022	<3E-05	-0.00006667	0.0001793
4/18/2023	<3E-05	-0.00008415	0.0001755
11/2/2023	<3E-05	-0.0001045	0.0001714

# Sen's Slope Estimator

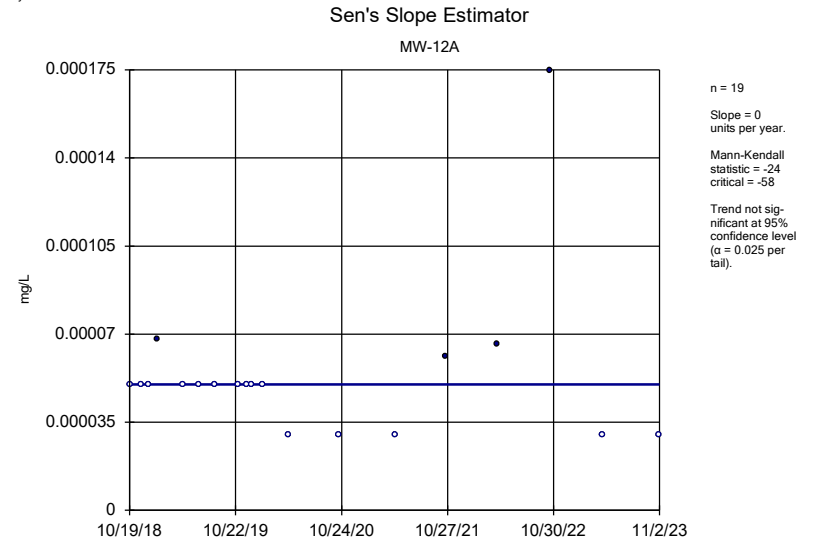
Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

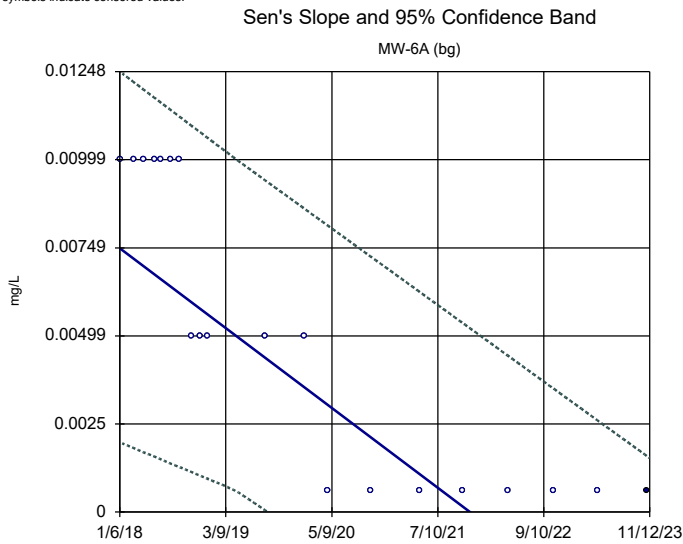
	MW-10A	LCL	UCL
1/6/2018	<0.0002	0.00003	0.0002761
3/3/2018	<0.0002	0.00003	0.000271
4/14/2018	<0.0002	0.00003	0.0002672
5/26/2018	<0.0002	0.00003	0.0002634
6/23/2018	<0.0002	0.00003	0.0002608
12/24/2018	<5E-05	0.00003	0.0002441
1/22/2020	<5E-05	0.00003	0.0002084
4/23/2020	<3E-05	0.00003	0.0002
10/14/2020	3.4E-05 (J)	0.00001478	0.0001857
4/27/2021	<3E-05	-0.000002536	0.0001697
10/20/2021	<3E-05	-0.00001919	0.0001552
4/20/2022	<3E-05	-0.00003713	0.0001403
10/24/2022	<3E-05	-0.00005904	0.0001249
4/18/2023	<3E-05	-0.00007965	0.0001105
11/2/2023	<3E-05	-0.0001005	0.00009422



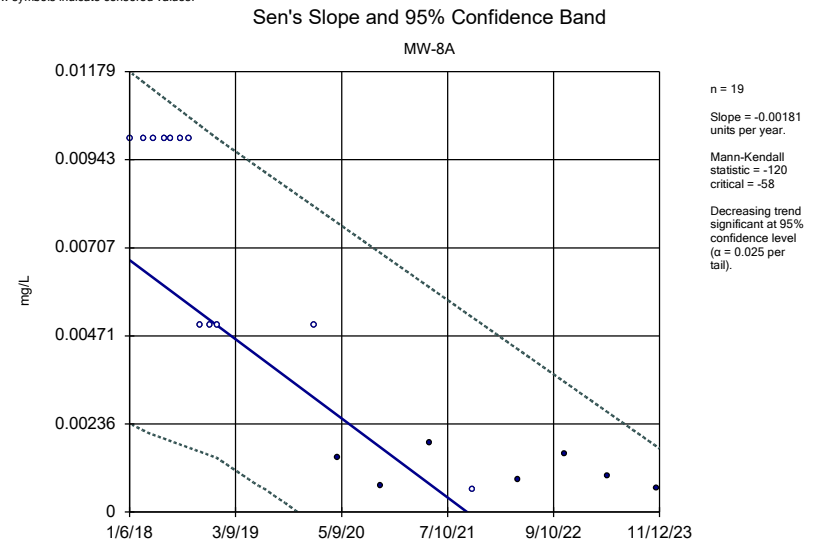
Constituent: Mercury Analysis Run 1/23/2024 12:03 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



Constituent: Mercury Analysis Run 1/23/2024 12:03 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



Constituent: Molybdenum Analysis Run 1/23/2024 12:03 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



Constituent: Molybdenum Analysis Run 1/23/2024 12:03 PM  
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<5E-05	0.00003	0.00006005
6/18/2019	<5E-05	0.00003	0.00005626
10/29/2019	<5E-05	0.00003	0.00005418
11/29/2019	<5E-05	0.00003	0.00005369
12/18/2019	<5E-05	0.00003	0.0000534
1/22/2020	<5E-05	0.00003	0.00005285
4/23/2020	<3E-05	0.00003	0.00005141
7/22/2020	<3E-05	0.00003	0.00005
10/14/2020	<3E-05	0.00002845	0.00005
4/27/2021	<3E-05	0.00002486	0.00005
10/18/2021	<3E-05	0.00002165	0.00005
4/19/2022	<3E-05	0.00001828	0.00005
10/18/2022	<3E-05	0.00001492	0.00005
4/18/2023	<3E-05	0.00001157	0.00005
11/2/2023	<3E-05	0.000007917	0.00005

# Sen's Slope Estimator

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A
10/19/2018	<5E-05
11/27/2018	<5E-05
12/24/2018	<5E-05
1/22/2019	6.8E-05
4/22/2019	<5E-05
6/18/2019	<5E-05
8/13/2019	<5E-05
10/29/2019	<5E-05
11/29/2019	<5E-05
12/18/2019	<5E-05
1/22/2020	<5E-05
4/23/2020	<3E-05
10/13/2020	<3E-05
4/27/2021	<3E-05
10/18/2021	6.1E-05 (JH)
4/18/2022	6.6E-05 (J)
10/18/2022	0.000175 (J)
4/17/2023	<3E-05
11/2/2023	<3E-05

# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.01	0.001976	0.01248
3/3/2018	<0.01	0.001812	0.01218
4/14/2018	<0.01	0.00169	0.01196
5/26/2018	<0.01	0.001568	0.01174
6/23/2018	<0.01	0.001486	0.01159
7/29/2018	<0.01	0.001381	0.0114
9/2/2018	<0.01	0.001279	0.01121
10/24/2018	<0.005	0.001128	0.01094
11/27/2018	<0.005	0.001029	0.01076
12/24/2018	<0.005	0.00095	0.01062
8/13/2019	<0.005	0.0006021	0.009411
1/22/2020	<0.005	-0.0007016	0.008588
4/23/2020	<0.0006	-0.001134	0.008121
10/14/2020	<0.0006	-0.001951	0.007237
4/27/2021	<0.0006	-0.002867	0.006247
10/18/2021	<0.0006	-0.003684	0.005363
4/19/2022	<0.0006	-0.004758	0.004433
10/19/2022	<0.0006	-0.005809	0.003504
4/18/2023	<0.0006	-0.006984	0.002585
11/2/2023	0.000616 (J)	-0.008368	0.001579

# Sen's Slope Estimator

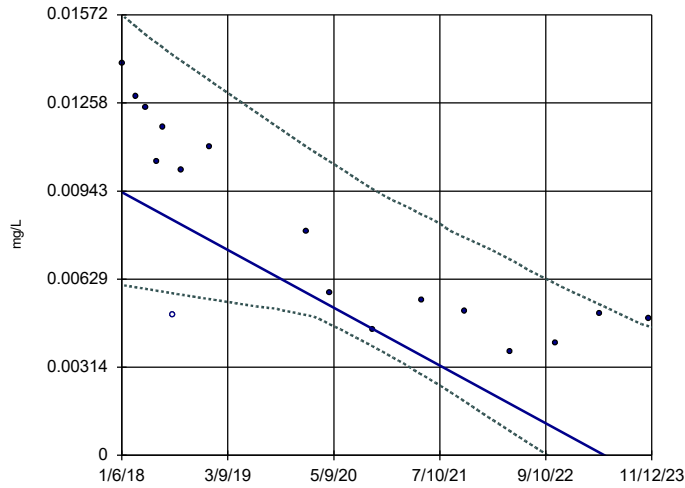
Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.01	0.002362	0.01179
3/3/2018	<0.01	0.002184	0.0115
4/14/2018	<0.01	0.002064	0.01129
5/26/2018	<0.01	0.001962	0.01108
6/23/2018	<0.01	0.001895	0.01093
7/29/2018	<0.01	0.001808	0.01075
9/2/2018	<0.01	0.001723	0.01057
10/19/2018	<0.005	0.001609	0.01034
11/27/2018	<0.005	0.001515	0.01014
12/24/2018	<0.005	0.00145	0.01
1/22/2020	<0.005	-0.0003305	0.008167
4/23/2020	0.00145 (J)	-0.0007525	0.007739
10/14/2020	0.000698 (J)	-0.00159	0.006929
4/27/2021	0.00185 (J)	-0.002545	0.006022
10/20/2021	<0.0006	-0.003357	0.005203
4/21/2022	0.000879 (J)	-0.004232	0.004351
10/24/2022	0.00157 (J)	-0.005173	0.003486
4/18/2023	0.000954 (J)	-0.006162	0.002667
11/2/2023	0.000643 (J)	-0.007276	0.001746

### Sen's Slope and 95% Confidence Band

MW-9A



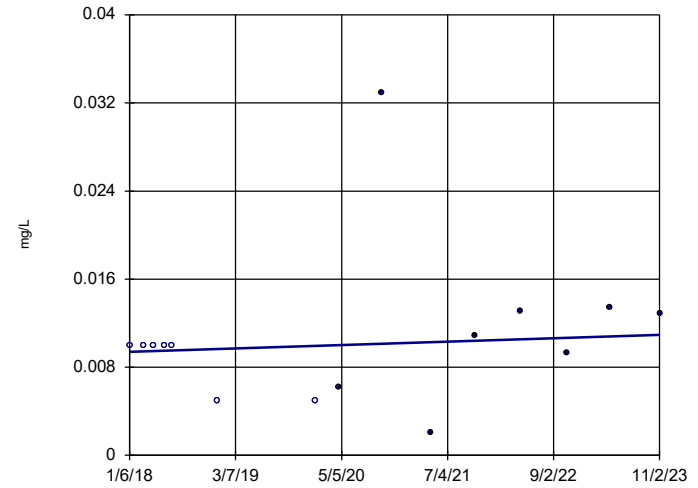
n = 17  
Slope = -0.001762  
units per year.  
Mann-Kendall  
statistic = -98  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



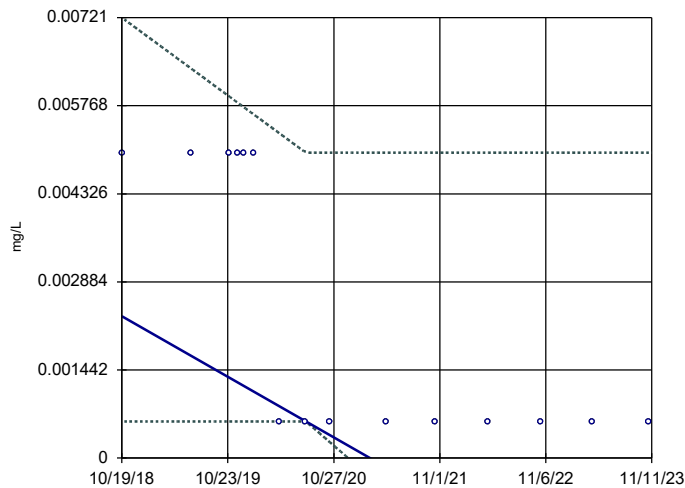
n = 15  
Slope = 0.0002643  
units per year.  
Mann-Kendall  
statistic = 18  
critical = 41  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A



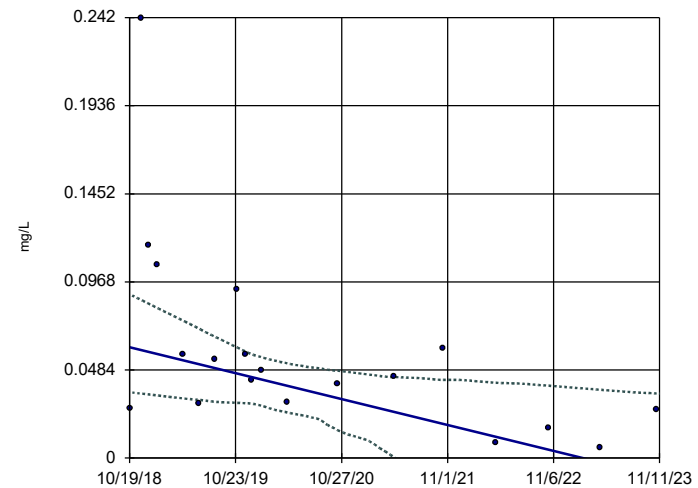
n = 15  
Slope = -0.0009781  
units per year.  
Mann-Kendall  
statistic = -54  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



n = 19  
Slope = -0.01406  
units per year.  
Mann-Kendall  
statistic = -84  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Molybdenum Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	0.014	0.006074	0.01572
3/3/2018	0.0128	0.006	0.01531
4/14/2018	0.0124	0.005939	0.015
5/26/2018	0.0105	0.005878	0.01472
6/23/2018	0.0117	0.005838	0.01454
7/29/2018	<0.01	0.005786	0.0143
9/2/2018	0.0102	0.005735	0.01408
12/24/2018	0.011	0.005577	0.0134
1/22/2020	0.008	0.005	0.011
4/23/2020	0.00579	0.004679	0.01048
10/14/2020	0.00448 (J)	0.003885	0.009495
4/27/2021	0.00556	0.002888	0.008597
10/19/2021	0.00516	0.001922	0.00777
4/19/2022	0.00368 (J)	0.0008683	0.006994
10/19/2022	0.00402 (J)	-0.0001858	0.00613
4/18/2023	0.00507	-0.001246	0.005376
11/2/2023	0.00489 (J)	-0.002407	0.004604

# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.01
3/3/2018	<0.01
4/14/2018	<0.01
5/26/2018	<0.01
6/23/2018	<0.01
12/24/2018	<0.005
1/22/2020	<0.005
4/23/2020	0.00613
10/14/2020	0.0329
4/27/2021	0.00204 (J)
10/20/2021	0.0109
4/20/2022	0.0131
10/24/2022	0.00927
4/18/2023	0.0134
11/2/2023	0.0129

# Sen's Slope Estimator

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0006	0.00721
6/18/2019	<0.005	0.0006	0.006377
10/29/2019	<0.005	0.0006	0.005919
11/29/2019	<0.005	0.0006	0.005813
12/18/2019	<0.005	0.0006	0.005747
1/22/2020	<0.005	0.0006	0.005627
4/23/2020	<0.0006	0.0006	0.00531
7/22/2020	<0.0006	0.0006	0.005
10/14/2020	<0.0006	0.0002594	0.005
4/27/2021	<0.0006	-0.0005314	0.005
10/18/2021	<0.0006	-0.001237	0.005
4/19/2022	<0.0006	-0.001979	0.005
10/18/2022	<0.0006	-0.002717	0.005
4/18/2023	<0.0006	-0.003455	0.005
11/2/2023	<0.0006	-0.004258	0.005

# Sen's Slope Estimator

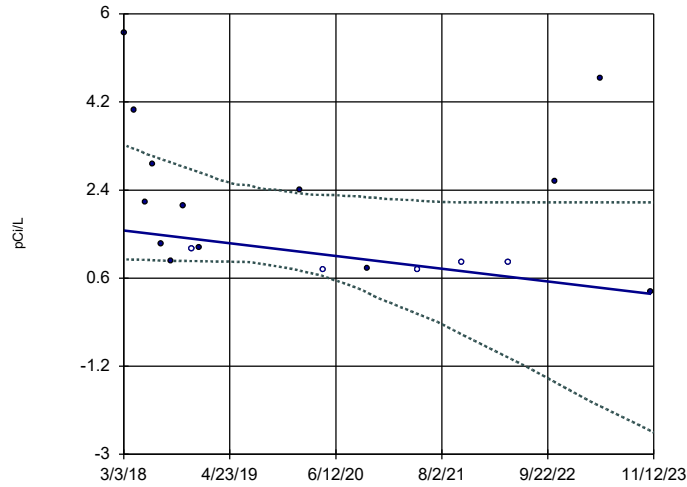
Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	0.027	0.03617	0.09002
11/27/2018	0.242	0.03547	0.08698
12/24/2018	0.117	0.03498	0.08488
1/22/2019	0.106	0.03446	0.08263
4/22/2019	0.057	0.03283	0.07564
6/18/2019	0.03	0.03202	0.07121
8/13/2019	0.054	0.03094	0.06666
10/29/2019	0.093	0.03037	0.0608
11/29/2019	0.057	0.03014	0.05845
12/18/2019	0.043	0.03	0.057
1/22/2020	0.048	0.02876	0.05542
4/23/2020	0.0306	0.02518	0.0521
10/13/2020	0.0411	0.01538	0.04806
4/27/2021	0.0445	0.0006269	0.0445
10/18/2021	0.0605	-0.01945	0.043
4/18/2022	0.00822	-0.03709	0.04136
10/18/2022	0.0166	-0.05445	0.03978
4/17/2023	0.00582	-0.07163	0.03756
11/2/2023	0.0263	-0.09121	0.03551

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



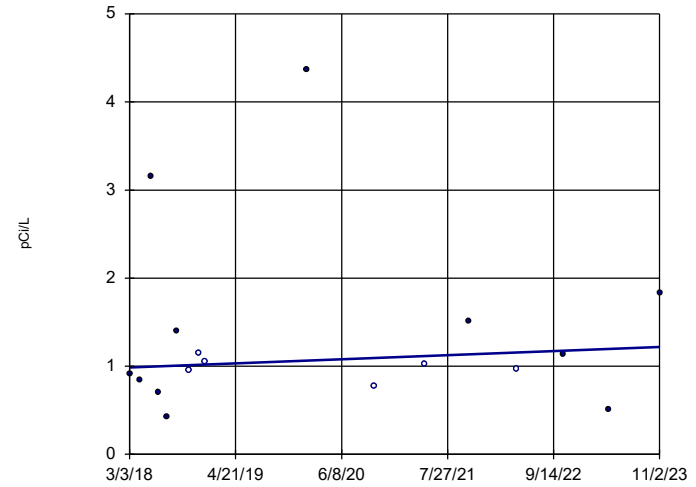
n = 18  
Slope = -0.2278  
units per year.  
Mann-Kendall  
statistic = -59  
critical = -53  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-8A



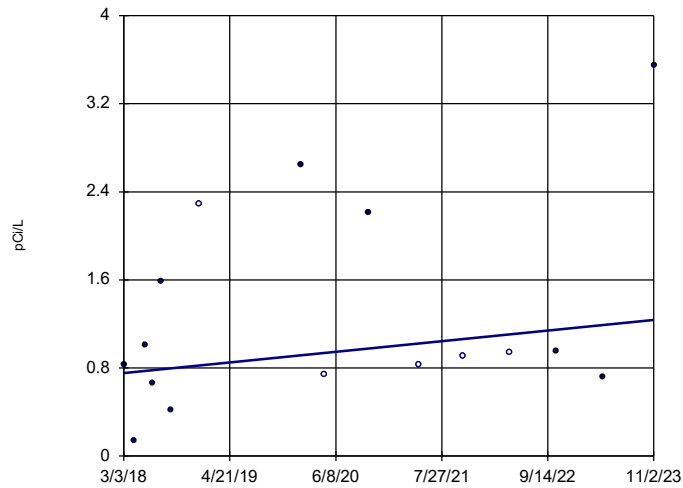
n = 17  
Slope = 0.04118  
units per year.  
Mann-Kendall  
statistic = 18  
critical = 49  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-9A



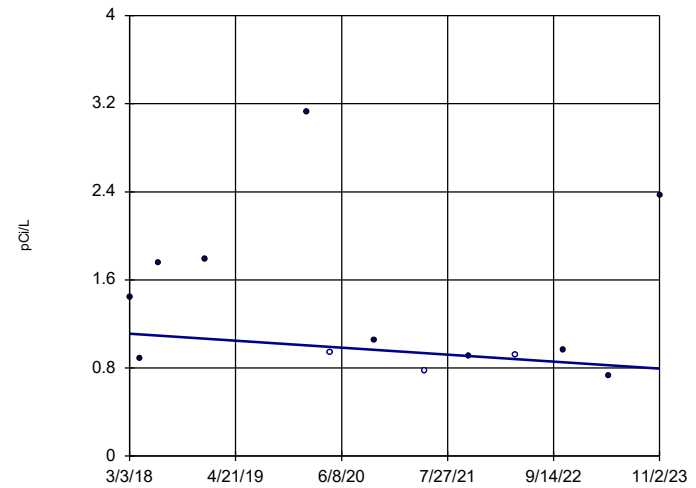
n = 16  
Slope = 0.08487  
units per year.  
Mann-Kendall  
statistic = 28  
critical = 45  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



n = 13  
Slope = -0.05588  
units per year.  
Mann-Kendall  
statistic = -12  
critical = -34  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
3/3/2018	5.62	0.9834	3.317
4/14/2018	4.04	0.979	3.24
5/26/2018	2.151	0.9745	3.144
6/23/2018	2.94	0.9677	3.097
7/29/2018	1.305	0.9589	3.029
9/2/2018	0.939	0.9537	2.966
10/24/2018	2.067	0.9508	2.873
11/27/2018	<1.197	0.949	2.812
12/24/2018	1.222	0.9475	2.764
1/22/2020	2.411	0.755	2.333
4/23/2020	<0.77	0.6423	2.301
10/14/2020	0.81	0.3027	2.251
4/27/2021	<0.78	-0.1269	2.185
10/18/2021	<0.93	-0.5464	2.151
4/19/2022	<0.92	-1.021	2.151
10/19/2022	2.59	-1.522	2.151
4/18/2023	4.68	-2.022	2.151
11/2/2023	0.326	-2.528	2.151

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A
3/3/2018	0.913
4/14/2018	0.843
5/26/2018	3.16
6/23/2018	0.7
7/29/2018	0.423
9/2/2018	1.397
10/19/2018	<0.954
11/27/2018	<1.145
12/24/2018	<1.05
1/22/2020	4.373
10/14/2020	<0.77
4/27/2021	<1.02
10/20/2021	1.51
4/21/2022	<0.97
10/24/2022	1.14
4/18/2023	0.507
11/2/2023	1.83

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A
3/3/2018	0.8328
4/14/2018	0.13573
5/26/2018	1.005
6/23/2018	0.658
7/29/2018	1.586
9/2/2018	0.421
12/24/2018	<2.288
1/22/2020	2.65
4/23/2020	<0.74
10/14/2020	2.21
4/27/2021	<0.83
10/19/2021	<0.91
4/19/2022	<0.94
10/19/2022	0.954
4/18/2023	0.718
11/2/2023	3.55



# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:12 PM

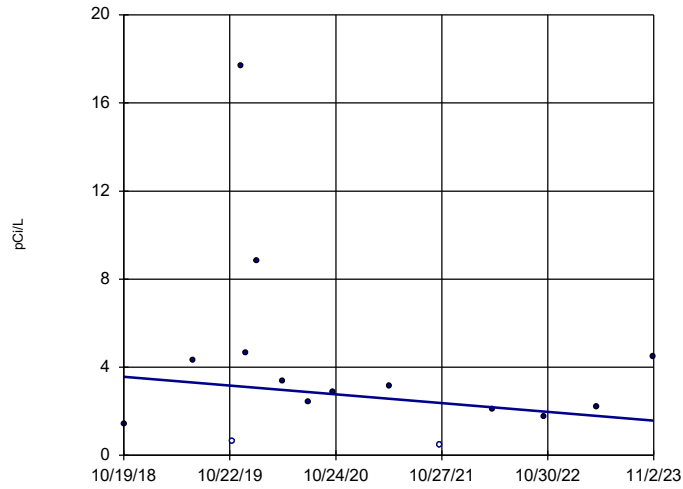
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

MW-10A

3/3/2018	1.444
4/14/2018	0.882
6/23/2018	1.753
12/24/2018	1.792
1/22/2020	3.13
4/23/2020	<0.94
10/14/2020	1.05
4/27/2021	<0.77
10/20/2021	0.91
4/20/2022	<0.92
10/24/2022	0.966
4/18/2023	0.73
11/2/2023	2.37

### Sen's Slope Estimator

MW-11A



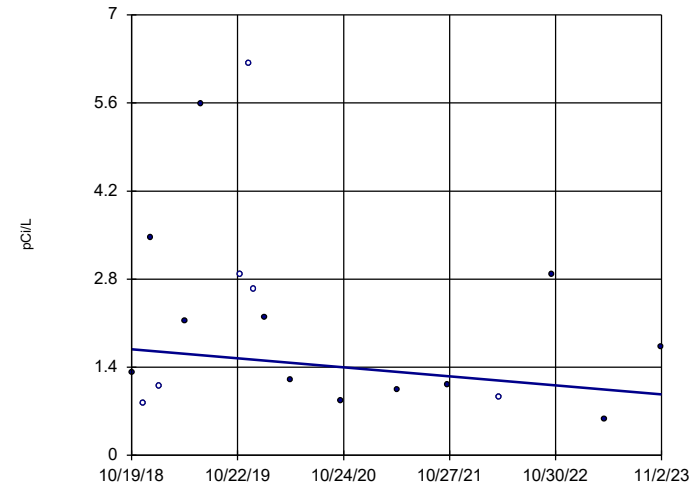
n = 15  
Slope = -0.3951  
units per year.  
Mann-Kendall  
statistic = -17  
critical = -41  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-12A



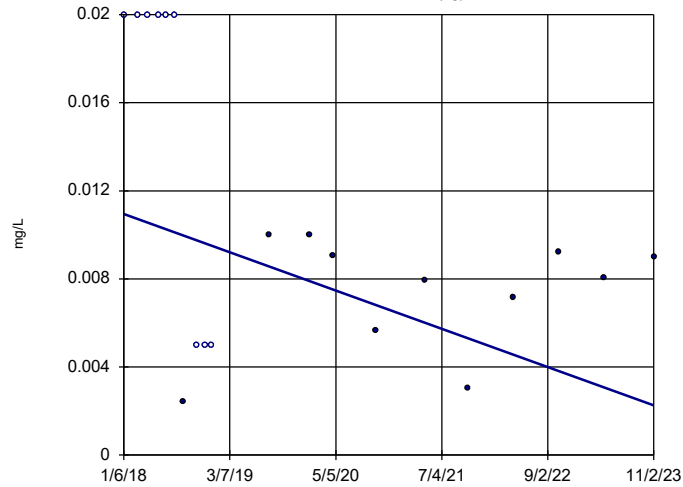
n = 18  
Slope = -0.1425  
units per year.  
Mann-Kendall  
statistic = -31  
critical = -53  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-6A (bg)



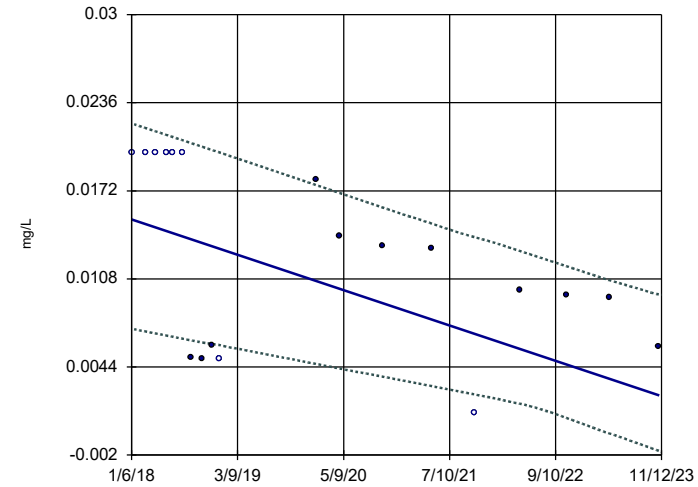
n = 20  
Slope = -0.00149  
units per year.  
Mann-Kendall  
statistic = -57  
critical = -62  
Trend not sig-  
nificant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



n = 19  
Slope = -0.002192  
units per year.  
Mann-Kendall  
statistic = -81  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A
10/19/2018	1.414
6/18/2019	4.34
10/29/2019	<1.311
11/29/2019	17.67
12/18/2019	4.65
1/22/2020	8.85
4/23/2020	3.36
7/22/2020	2.41
10/14/2020	2.87
4/27/2021	3.12
10/18/2021	<0.95
4/19/2022	2.1
10/18/2022	1.77
4/18/2023	2.18
11/2/2023	4.51

# Sen's Slope Estimator

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A
10/19/2018	1.308
11/27/2018	<0.832
12/24/2018	3.46
1/22/2019	<1.106
4/22/2019	2.141
6/18/2019	5.588
10/29/2019	<2.885
11/29/2019	<6.223
12/18/2019	<2.648
1/22/2020	2.191
4/23/2020	1.2
10/13/2020	0.86
4/27/2021	1.04
10/18/2021	1.12
4/18/2022	<0.92
10/18/2022	2.88
4/17/2023	0.575
11/2/2023	1.72

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:12 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)
1/6/2018	<0.02
3/3/2018	<0.02
4/14/2018	<0.02
5/26/2018	<0.02
6/23/2018	<0.02
7/29/2018	<0.02
9/2/2018	0.00244
10/24/2018	<0.005
11/27/2018	<0.005
12/24/2018	<0.005
8/13/2019	0.01
1/22/2020	0.01
4/23/2020	0.00905
10/14/2020	0.00564
4/27/2021	0.00796
10/18/2021	0.00305
4/19/2022	0.00718
10/19/2022	0.00921
4/18/2023	0.00805
11/2/2023	0.00901

# Sen's Slope Estimator

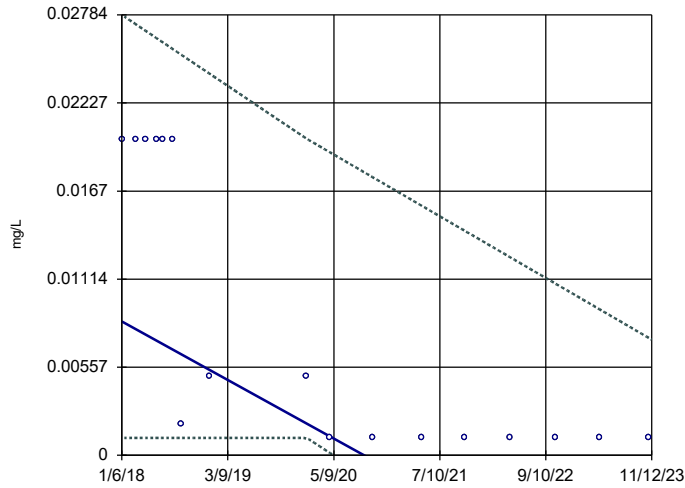
Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.02	0.00718	0.0221
3/3/2018	<0.02	0.006982	0.02176
4/14/2018	<0.02	0.006834	0.02151
5/26/2018	<0.02	0.006687	0.02126
6/23/2018	<0.02	0.006588	0.0211
7/29/2018	<0.02	0.006461	0.02088
9/2/2018	0.00509	0.006338	0.02067
10/19/2018	0.005	0.006178	0.02039
11/27/2018	0.006	0.006073	0.02016
12/24/2018	<0.005	0.006	0.02
1/22/2020	0.018	0.004613	0.0176
4/23/2020	0.0139	0.004289	0.01704
10/14/2020	0.0132	0.003698	0.01599
4/27/2021	0.013	0.003018	0.01483
10/20/2021	<0.0011	0.002404	0.01383
4/21/2022	0.01	0.001725	0.01282
10/24/2022	0.00964	0.0007018	0.01172
4/18/2023	0.00943	-0.0004369	0.01069
11/2/2023	0.00588	-0.0017	0.009676

### Sen's Slope and 95% Confidence Band

MW-9A



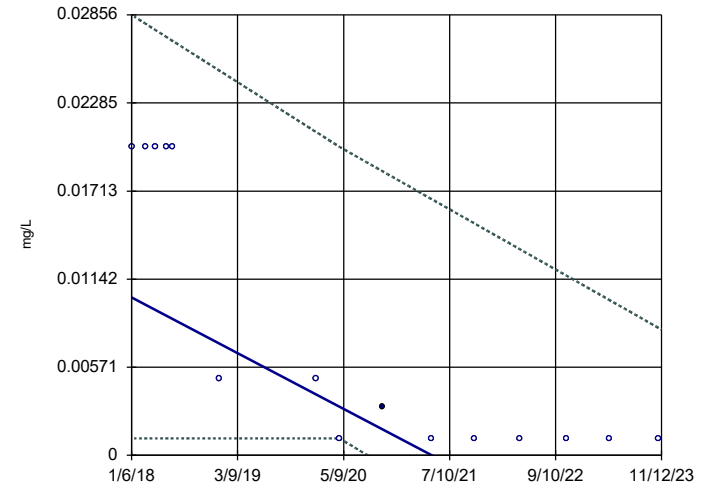
n = 17  
Slope = -0.003166  
units per year.  
Mann-Kendall  
statistic = -88  
critical = -49  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-10A



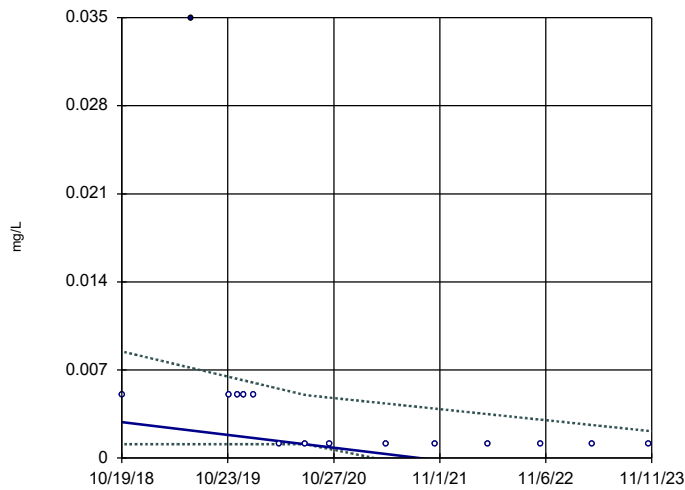
n = 15  
Slope = -0.003088  
units per year.  
Mann-Kendall  
statistic = -71  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-11A



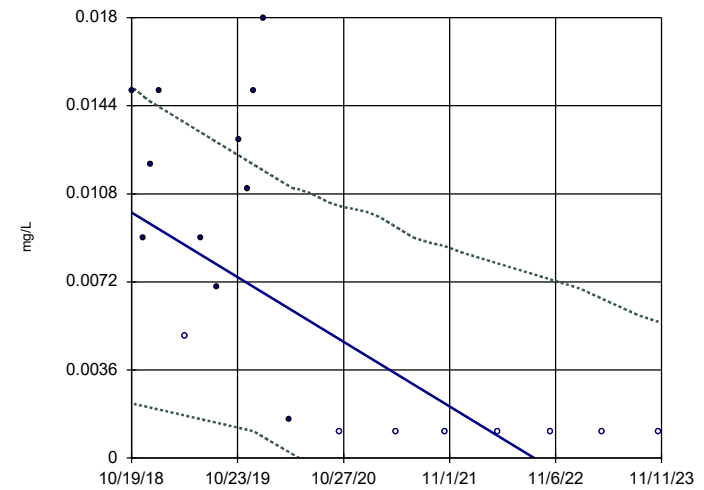
n = 15  
Slope = -0.001006  
units per year.  
Mann-Kendall  
statistic = -57  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



n = 19  
Slope = -0.002607  
units per year.  
Mann-Kendall  
statistic = -84  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Selenium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A	LCL	UCL
1/6/2018	<0.02	0.0011	0.02784
3/3/2018	<0.02	0.0011	0.02725
4/14/2018	<0.02	0.0011	0.02681
5/26/2018	<0.02	0.0011	0.02637
6/23/2018	<0.02	0.0011	0.02607
7/29/2018	<0.02	0.0011	0.0257
9/2/2018	<0.002	0.0011	0.02533
12/24/2018	<0.005	0.0011	0.02414
1/22/2020	<0.005	0.0011	0.02
4/23/2020	<0.0011	0.0001561	0.01916
10/14/2020	<0.0011	-0.001629	0.01757
4/27/2021	<0.0011	-0.00369	0.01579
10/19/2021	<0.0011	-0.005585	0.01419
4/19/2022	<0.0011	-0.007661	0.01253
10/19/2022	<0.0011	-0.009703	0.01086
4/18/2023	<0.0011	-0.01207	0.009208
11/2/2023	<0.0011	-0.01435	0.0074



# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A	LCL	UCL
1/6/2018	<0.02	0.0011	0.02856
3/3/2018	<0.02	0.0011	0.02799
4/14/2018	<0.02	0.0011	0.02756
5/26/2018	<0.02	0.0011	0.02713
6/23/2018	<0.02	0.0011	0.02684
12/24/2018	<0.005	0.0011	0.02496
1/22/2020	<0.005	0.0011	0.02094
4/23/2020	<0.0011	0.0011	0.02
10/14/2020	0.00314	-0.0006057	0.01841
4/27/2021	<0.0011	-0.002517	0.01663
10/20/2021	<0.0011	-0.004243	0.01502
4/20/2022	<0.0011	-0.006027	0.01336
10/24/2022	<0.0011	-0.007994	0.01165
4/18/2023	<0.0011	-0.0099	0.01005
11/2/2023	<0.0011	-0.01208	0.00824

# Sen's Slope Estimator

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.005	0.0011	0.008477
6/18/2019	0.035	0.0011	0.007167
10/29/2019	<0.005	0.0011	0.006446
11/29/2019	<0.005	0.0011	0.006278
12/18/2019	<0.005	0.0011	0.006175
1/22/2020	<0.005	0.0011	0.005986
4/23/2020	<0.0011	0.0011	0.005487
7/22/2020	<0.0011	0.0011	0.005
10/14/2020	<0.0011	0.0007159	0.0048
4/27/2021	<0.0011	-0.0002029	0.004337
10/18/2021	<0.0011	-0.001015	0.003924
4/19/2022	<0.0011	-0.002139	0.003489
10/18/2022	<0.0011	-0.003065	0.003057
4/18/2023	<0.0011	-0.003992	0.002625
11/2/2023	<0.0011	-0.005262	0.002155

# Sen's Slope Estimator

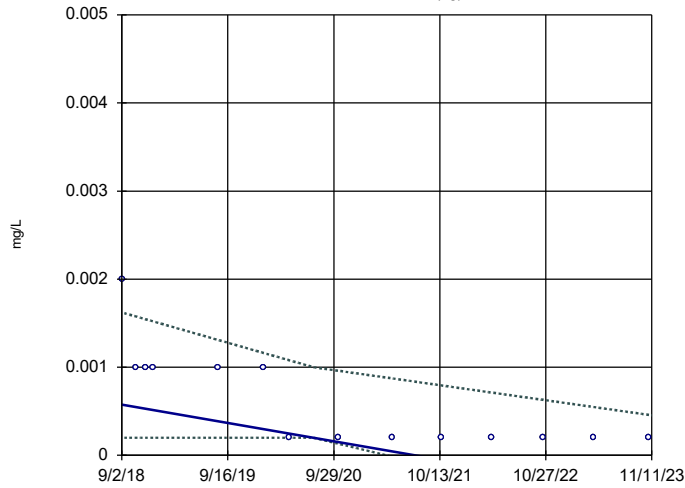
Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	0.015	0.002238	0.01519
11/27/2018	0.009	0.002134	0.0148
12/24/2018	0.012	0.002062	0.01456
1/22/2019	0.015	0.001984	0.01436
4/22/2019	<0.005	0.001743	0.01371
6/18/2019	0.009	0.00159	0.01331
8/13/2019	0.007	0.00144	0.01291
10/29/2019	0.013	0.001234	0.01236
11/29/2019	0.011	0.001151	0.01214
12/18/2019	0.015	0.0011	0.012
1/22/2020	0.018	0.0008584	0.01175
4/23/2020	0.00158 (J)	0.0002232	0.01109
10/13/2020	<0.0011	-0.0009737	0.0103
4/27/2021	<0.0011	-0.002443	0.009457
10/18/2021	<0.0011	-0.003712	0.008647
4/18/2022	<0.0011	-0.005082	0.007957
10/18/2022	<0.0011	-0.006513	0.007304
4/17/2023	<0.0011	-0.007915	0.006515
11/2/2023	<0.0011	-0.009474	0.005559

### Sen's Slope and 95% Confidence Band

MW-6A (bg)



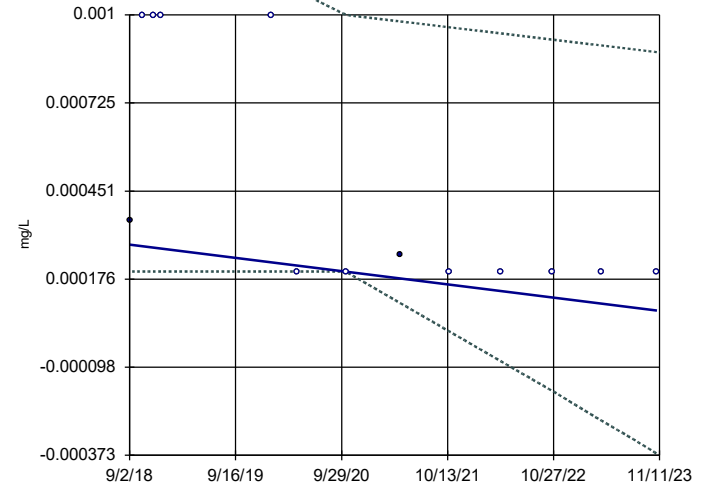
n = 14  
Slope = -0.0002005 units per year.  
Mann-Kendall statistic = -53  
critical = -37  
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-8A



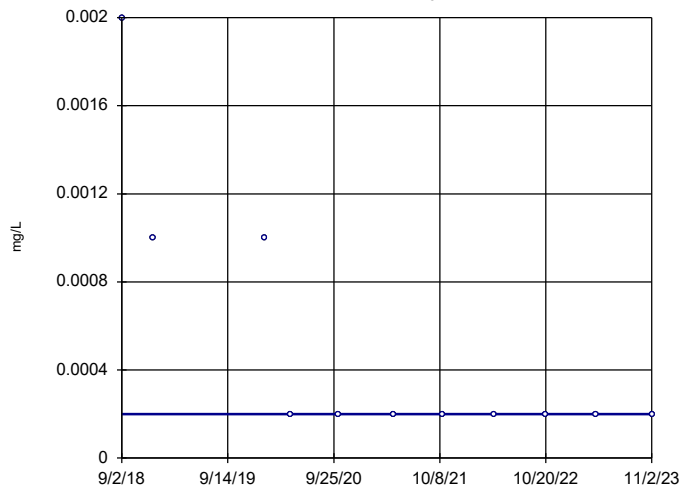
n = 13  
Slope = -0.00003966 units per year.  
Mann-Kendall statistic = -39  
critical = -34  
Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-9A



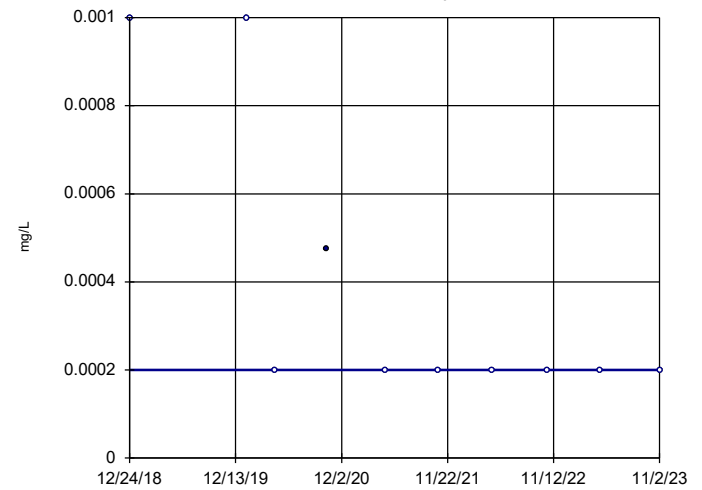
n = 11  
Slope = 0 units per year.  
Mann-Kendall statistic = -26  
critical = -27  
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope Estimator

MW-10A



n = 10  
Slope = 0 units per year.  
Mann-Kendall statistic = -21  
critical = -23  
Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Thallium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-6A (bg)	LCL	UCL
1/6/2018	<0.02 (o)		
3/3/2018	<0.02 (o)		
4/14/2018	<0.02 (o)		
5/26/2018	<0.02 (o)		
6/23/2018	<0.02 (o)		
7/29/2018	<0.02 (o)		
9/2/2018	<0.002	0.0002	0.001622
10/24/2018	<0.001	0.0002	0.001575
11/27/2018	<0.001	0.0002	0.001544
12/24/2018	<0.001	0.0002	0.00152
8/13/2019	<0.001	0.0002	0.001309
1/22/2020	<0.001	0.0002	0.001162
4/23/2020	<0.0002	0.0002	0.001079
10/14/2020	<0.0002	0.0001332	0.0009608
4/27/2021	<0.0002	-0.00001644	0.0008728
10/18/2021	<0.0002	-0.00015	0.0007944
4/19/2022	<0.0002	-0.0002904	0.0007118
10/19/2022	<0.0002	-0.0004373	0.0006293
4/18/2023	<0.0002	-0.0005798	0.0005477
11/2/2023	<0.0002	-0.000807	0.0004584

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	LCL	UCL
1/6/2018	<0.02 (o)		
3/3/2018	<0.02 (o)		
4/14/2018	<0.02 (o)		
5/26/2018	<0.02 (o)		
6/23/2018	<0.02 (o)		
7/29/2018	<0.02 (o)		
9/2/2018	0.00036	0.0002	0.001336
10/19/2018	<0.001	0.0002	0.001316
11/27/2018	<0.001	0.0002	0.001299
12/24/2018	<0.001	0.0002	0.001287
1/22/2020	<0.001	0.0002	0.001116
4/23/2020	<0.0002	0.0002	0.001076
10/14/2020	<0.0002	0.0002	0.001
4/27/2021	0.000252 (J)	0.0001018	0.0009797
10/20/2021	<0.0002	0.00001326	0.0009613
4/21/2022	<0.0002	-0.00007885	0.0009423
10/24/2022	<0.0002	-0.0001725	0.0009229
4/18/2023	<0.0002	-0.000265	0.0009045
11/2/2023	<0.0002	-0.0003679	0.0008839

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-9A
1/6/2018	<0.02 (o)
3/3/2018	<0.02 (o)
4/14/2018	<0.02 (o)
5/26/2018	<0.02 (o)
6/23/2018	<0.02 (o)
7/29/2018	<0.02 (o)
9/2/2018	<0.002
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	<0.0002
4/27/2021	<0.0002
10/19/2021	<0.0002
4/19/2022	<0.0002
10/19/2022	<0.0002
4/18/2023	<0.0002
11/2/2023	<0.0002

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:13 PM

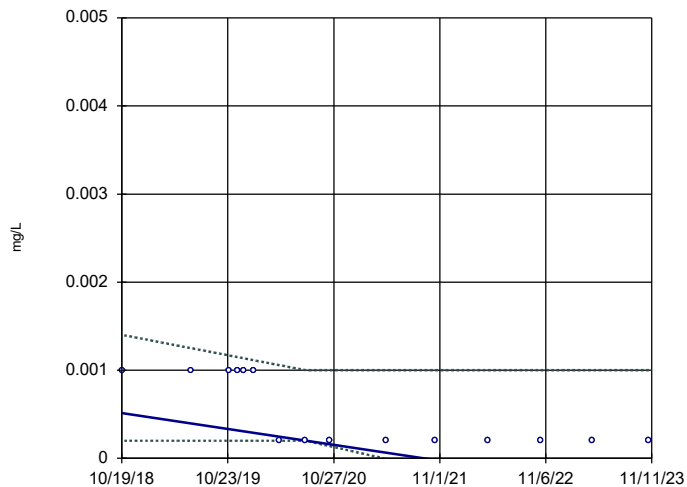
Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-10A
1/6/2018	<0.02 (o)
3/3/2018	<0.02 (o)
4/14/2018	<0.02 (o)
5/26/2018	<0.02 (o)
6/23/2018	<0.02 (o)
12/24/2018	<0.001
1/22/2020	<0.001
4/23/2020	<0.0002
10/14/2020	0.000475 (J)
4/27/2021	<0.0002
10/20/2021	<0.0002
4/20/2022	<0.0002
10/24/2022	<0.0002
4/18/2023	<0.0002
11/2/2023	<0.0002



### Sen's Slope and 95% Confidence Band

MW-11A



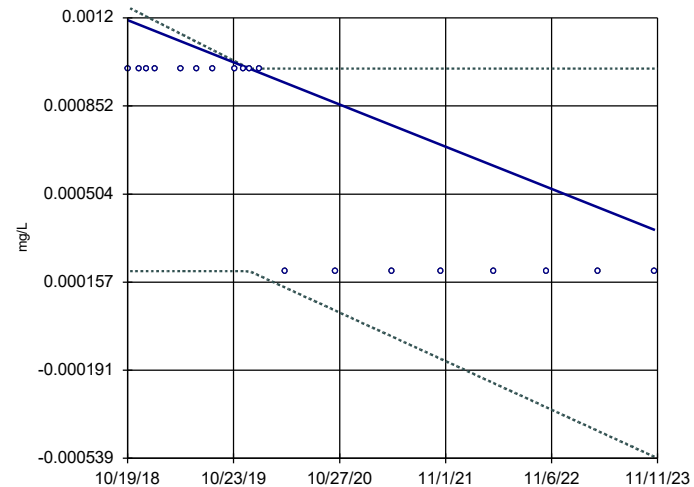
n = 15  
Slope = -0.0001778  
units per year.  
Mann-Kendall  
statistic = -54  
critical = -41  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Sen's Slope and 95% Confidence Band

MW-12A



n = 19  
Slope = -0.0001646  
units per year.  
Mann-Kendall  
statistic = -88  
critical = -58  
Decreasing trend  
significant at 95%  
confidence level  
( $\alpha = 0.025$  per  
tail).

Constituent: Thallium Analysis Run 1/23/2024 12:03 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-11A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001402
6/18/2019	<0.001	0.0002	0.00125
10/29/2019	<0.001	0.0002	0.001167
11/29/2019	<0.001	0.0002	0.001148
12/18/2019	<0.001	0.0002	0.001136
1/22/2020	<0.001	0.0002	0.001114
4/23/2020	<0.0002	0.0002	0.001056
7/22/2020	<0.0002	0.0002	0.001
10/14/2020	<0.0002	0.0001381	0.001
4/27/2021	<0.0002	-0.000005714	0.001
10/18/2021	<0.0002	-0.000134	0.001
4/19/2022	<0.0002	-0.0002689	0.001
10/18/2022	<0.0002	-0.0004031	0.001
4/18/2023	<0.0002	-0.0005373	0.001
11/2/2023	<0.0002	-0.0006833	0.001

# Sen's Slope Estimator

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:13 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-12A	LCL	UCL
10/19/2018	<0.001	0.0002	0.001243
11/27/2018	<0.001	0.0002	0.001221
12/24/2018	<0.001	0.0002	0.001205
1/22/2019	<0.001	0.0002	0.001189
4/22/2019	<0.001	0.0002	0.001137
6/18/2019	<0.001	0.0002	0.001105
8/13/2019	<0.001	0.0002	0.001073
10/29/2019	<0.001	0.0002	0.001029
11/29/2019	<0.001	0.0002	0.001011
12/18/2019	<0.001	0.0002	0.001
1/22/2020	<0.001	0.0001818	0.001
4/23/2020	<0.0002	0.0001341	0.001
10/13/2020	<0.0002	0.00004436	0.001
4/27/2021	<0.0002	-0.00005733	0.001
10/18/2021	<0.0002	-0.0001476	0.001
4/18/2022	<0.0002	-0.000242	0.001
10/18/2022	<0.0002	-0.000337	0.001
4/17/2023	<0.0002	-0.0004309	0.001
11/2/2023	<0.0002	-0.0005341	0.001

# Confidence Interval (Second 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 231102 EVANS AND ASSOCIATES AM - final    Printed 1/23/2024, 12:20 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-8A	0.005	0.0004	0.006	No	13	84.62	No	0.01	NP (NDs)
Antimony (mg/L)	MW-9A	0.005	0.0004	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-10A	0.005	0.000431	0.006	No	10	30	No	0.011	NP (normality)
Antimony (mg/L)	MW-11A	0.005	0.0004	0.006	No	15	93.33	No	0.01	NP (NDs)
Antimony (mg/L)	MW-12A	0.005	0.0004	0.006	No	19	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-8A	0.002392	0.001106	0.01875	No	19	47.37	ln(x)	0.01	Param.
Arsenic (mg/L)	MW-9A	0.01	0.00174	0.01875	No	17	41.18	No	0.01	NP (normality)
Arsenic (mg/L)	MW-10A	0.011	0.005	0.01875	No	15	40	No	0.01	NP (normality)
Arsenic (mg/L)	MW-11A	0.003405	0.001101	0.01875	No	15	26.67	ln(x)	0.01	Param.
Arsenic (mg/L)	MW-12A	0.006462	0.002343	0.01875	No	19	36.84	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-8A	0.354	0.263	2	No	19	0	No	0.01	NP (normality)
Barium (mg/L)	MW-9A	0.121	0.0591	2	No	17	0	No	0.01	NP (normality)
Barium (mg/L)	MW-10A	0.174	0.045	2	No	15	0	No	0.01	NP (normality)
Barium (mg/L)	MW-11A	0.5245	0.3415	2	No	15	0	No	0.01	Param.
Barium (mg/L)	MW-12A	0.05068	0.02975	2	No	19	0	ln(x)	0.01	Param.
Beryllium (mg/L)	MW-8A	0.001	0.0002	0.004	No	13	76.92	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-9A	0.001	0.0002	0.004	No	11	63.64	No	0.006	NP (normality)
Beryllium (mg/L)	MW-10A	0.001	0.0002	0.004	No	10	80	No	0.011	NP (NDs)
Beryllium (mg/L)	MW-11A	0.001	0.0002	0.004	No	15	73.33	No	0.01	NP (normality)
Beryllium (mg/L)	MW-12A	0.0014	0.000258	0.004	No	19	57.89	No	0.01	NP (normality)
Cadmium (mg/L)	MW-8A	0.001	0.0002	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-9A	0.001	0.0002	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-10A	0.001	0.0002	0.005	No	10	70	No	0.011	NP (normality)
Cadmium (mg/L)	MW-11A	0.001	0.0002	0.005	No	15	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-12A	0.001	0.0002	0.005	No	19	89.47	No	0.01	NP (NDs)
Chromium (mg/L)	MW-8A	0.0131	0.00501	0.1	No	19	36.84	No	0.01	NP (normality)
Chromium (mg/L)	MW-9A	0.01	0.00126	0.1	No	17	52.94	No	0.01	NP (normality)
Chromium (mg/L)	MW-10A	0.004725	0.00141	0.1	No	15	40	ln(x)	0.01	Param.
Chromium (mg/L)	MW-11A	0.01	0.00121	0.1	No	15	46.67	No	0.01	NP (normality)
Chromium (mg/L)	MW-12A	0.01	0.000811	0.1	No	19	68.42	No	0.01	NP (normality)
Cobalt (mg/L)	MW-8A	0.0117	0.00105	0.12	No	19	57.89	No	0.01	NP (normality)
Cobalt (mg/L)	MW-9A	0.01	0.000419	0.12	No	17	58.82	No	0.01	NP (normality)
Cobalt (mg/L)	MW-10A	0.01534	0.004697	0.12	No	15	26.67	sqrt(x)	0.01	Param.
Cobalt (mg/L)	MW-11A	0.01	0.000225	0.12	No	15	46.67	No	0.01	NP (normality)
Cobalt (mg/L)	MW-12A	0.0104	0.00567	0.12	No	19	52.63	No	0.01	NP (normality)
Fluoride (mg/L)	MW-8A	0.363	0.29	4	No	27	0	No	0.01	NP (normality)
Fluoride (mg/L)	MW-9A	0.7832	0.7041	4	No	25	0	No	0.01	Param.
Fluoride (mg/L)	MW-10A	0.588	0.4302	4	No	23	17.39	No	0.01	Param.
Fluoride (mg/L)	MW-11A	0.306	0.2047	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	MW-12A	0.7439	0.5829	4	No	19	0	No	0.01	Param.
Lead (mg/L)	MW-8A	0.005456	0.001422	0.2741	No	19	57.89	sqrt(x)	0.01	Param.
Lead (mg/L)	MW-9A	0.01	0.000899	0.2741	No	17	47.06	No	0.01	NP (normality)
Lead (mg/L)	MW-10A	0.01046	0.00255	0.2741	No	15	26.67	ln(x)	0.01	Param.
Lead (mg/L)	MW-11A	0.005	0.0006	0.2741	No	15	53.33	No	0.01	NP (normality)
Lead (mg/L)	MW-12A	0.009179	0.002862	0.2741	No	19	31.58	No	0.01	Param.
Lithium (mg/L)	MW-8A	0.05	0.00993	0.06675	No	19	52.63	No	0.01	NP (normality)
Lithium (mg/L)	MW-9A	0.05	0.0195	0.06675	No	17	47.06	No	0.01	NP (normality)
Lithium (mg/L)	MW-10A	0.05	0.00346	0.06675	No	15	46.67	No	0.01	NP (normality)
Lithium (mg/L)	MW-11A	0.04	0.00917	0.06675	No	15	40	No	0.01	NP (normality)
Lithium (mg/L)	MW-12A	0.04	0.00444	0.06675	No	19	52.63	No	0.01	NP (normality)

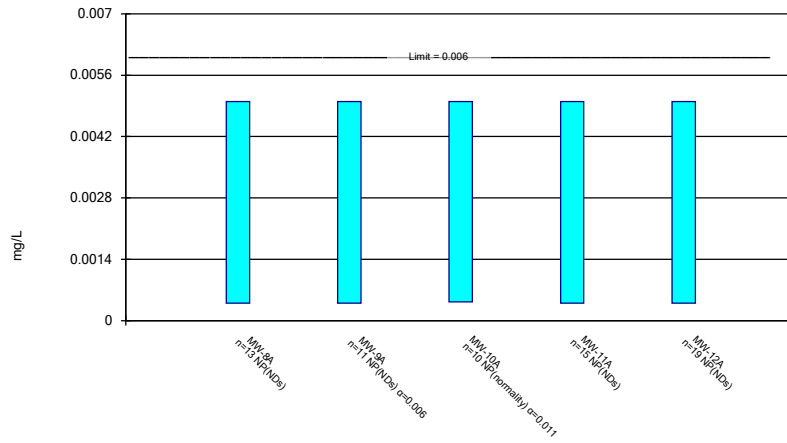
# Confidence Interval (Second 2023 Sampling)

Big Fork Ranch Facility    Client: Enviro Clean Cardinal    Data: 231102 EVANS AND ASSOCIATES AM - final    Printed 1/23/2024, 12:20 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	MW-8A	0.0002	0.00003	0.002	No	19	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-9A	0.0002	0.00003	0.002	No	17	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-10A	0.0002	0.00003	0.002	No	15	93.33	No	0.01	NP (NDs)
Mercury (mg/L)	MW-11A	0.00005	0.00003	0.002	No	15	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-12A	0.000061	0.00003	0.002	No	19	78.95	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-8A	0.01	0.000879	0.1	No	19	63.16	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-9A	0.0117	0.00489	0.1	No	17	5.882	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-10A	0.01142	0.003224	0.1	No	15	46.67	x^(1/3)	0.01	Param.
Molybdenum (mg/L)	MW-11A	0.005	0.0006	0.1	No	15	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-12A	0.07774	0.02773	0.1	No	19	0	sqrt(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-8A	1.43	0.6253	5.888	No	17	35.29	ln(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-9A	1.516	0.4852	5.888	No	16	31.25	sqrt(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-10A	1.678	0.8433	5.888	No	13	23.08	ln(x)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-11A	5.511	1.538	5.888	No	15	13.33	x^(1/3)	0.01	Param.
Ra 226 and 228 (pCi/L)	MW-12A	2.2	0.9214	5.888	No	18	33.33	sqrt(x)	0.01	Param.
Selenium (mg/L)	MW-8A	0.02	0.00509	0.05	No	19	42.11	No	0.01	NP (normality)
Selenium (mg/L)	MW-9A	0.02	0.0011	0.05	No	17	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-10A	0.02	0.0011	0.05	No	15	93.33	No	0.01	NP (NDs)
Selenium (mg/L)	MW-11A	0.005	0.0011	0.05	No	15	93.33	No	0.01	NP (NDs)
Selenium (mg/L)	MW-12A	0.013	0.0011	0.05	No	19	42.11	No	0.01	NP (normality)
Thallium (mg/L)	MW-8A	0.001	0.0002	0.002	No	13	84.62	No	0.01	NP (NDs)
Thallium (mg/L)	MW-9A	0.001	0.0002	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-10A	0.001	0.0002	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	MW-11A	0.001	0.0002	0.002	No	15	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-12A	0.001	0.0002	0.002	No	19	100	No	0.01	NP (NDs)

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

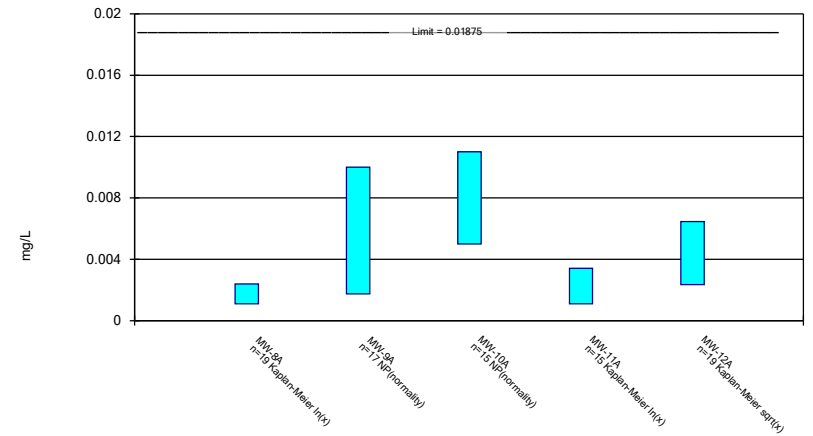


Constituent: Antimony Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### 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.

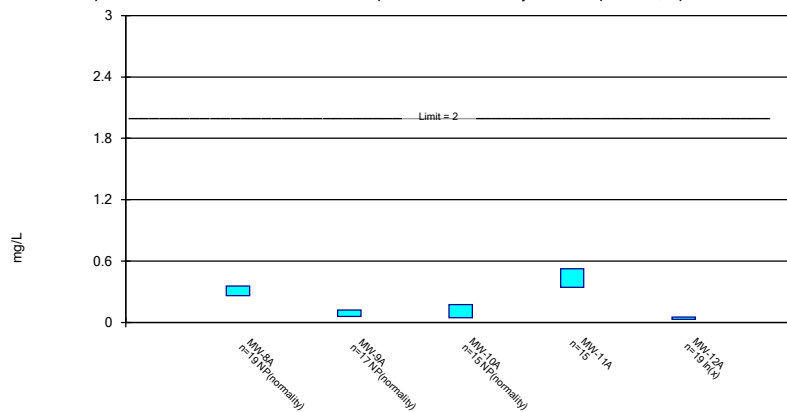


Constituent: Arsenic Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### 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.

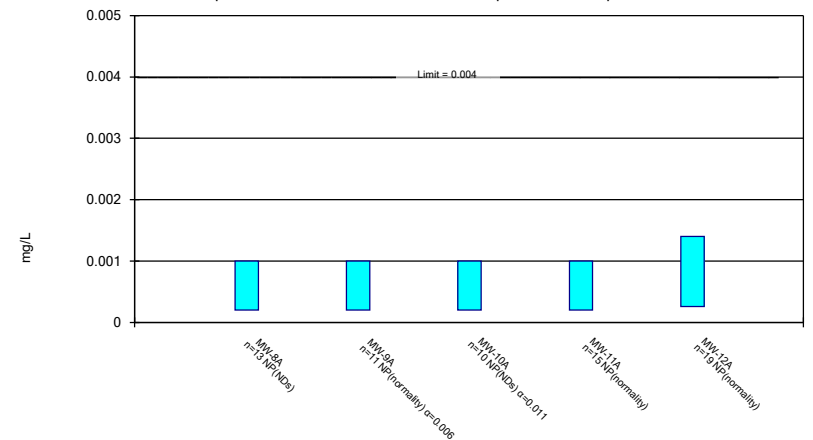


Constituent: Barium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
3/3/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
4/14/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
5/26/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
6/23/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
7/29/2018	<0.01 (o)	<0.01 (o)			
9/2/2018	0.00108	<0.001			
10/19/2018	<0.005			<0.005	<0.005
11/27/2018	<0.005				<0.005
12/24/2018	<0.005	<0.005	<0.005		<0.005
1/22/2019					<0.0005
4/22/2019					<0.005
6/18/2019				<0.005	<0.005
8/13/2019					<0.005
10/29/2019				<0.005	<0.005
11/29/2019				<0.005	<0.005
12/18/2019				<0.005	<0.005
1/22/2020	<0.005	<0.005	<0.005	<0.005	<0.005
4/23/2020	<0.0004	<0.0004	0.000655 (J)	<0.0004	<0.0004
7/22/2020				0.000484 (J)	
10/13/2020					<0.0004
10/14/2020	<0.0004	<0.0004	0.000632 (J)	<0.0004	
4/27/2021	0.000975 (J)	<0.0004	<0.0004	<0.0004	<0.0004
10/18/2021				<0.0004	<0.0004
10/19/2021		<0.0004			
10/20/2021	<0.0004		0.000723 (J)		
4/18/2022					<0.0004
4/19/2022		<0.0004		<0.0004	
4/20/2022			0.000803 (J)		
4/21/2022	<0.0004				
10/18/2022				<0.0004	<0.0004
10/19/2022		<0.0004			
10/24/2022	<0.0004		0.000431 (J)		
4/17/2023					<0.0004
4/18/2023	<0.0004	<0.0004	0.000943 (J)	<0.0004	
11/2/2023	<0.0004	<0.0004	0.000457 (J)	<0.0004	<0.0004
Mean	0.001912	0.001291	0.001504	0.002246	0.002826
Std. Dev.	0.002155	0.001843	0.00185	0.002328	0.002354
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0004	0.0004	0.000431	0.0004	0.0004

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	<0.01		
5/26/2018	<0.01	<0.01	<0.01		
6/23/2018	<0.01	<0.01	<0.01		
7/29/2018	0.0133	<0.01			
9/2/2018	0.00164	0.00158			
10/19/2018	<0.005			<0.005	<0.005
11/27/2018	<0.005				<0.005
12/24/2018	<0.005	<0.005	<0.005		<0.005
1/22/2019					0.009
4/22/2019					<0.005
6/18/2019				<0.005	<0.005
8/13/2019					0.007
10/29/2019				0.016	0.01
11/29/2019				<0.005	<0.005
12/18/2019				<0.005	<0.005
1/22/2020	<0.005	0.013	0.011	0.011	0.013
4/23/2020	0.000833 (J)	0.00174 (J)	0.00957	0.00142 (J)	0.00135 (J)
7/22/2020				0.00303	
10/13/2020					0.00798
10/14/2020	0.00276	0.00248	0.0505	0.00136 (J)	
4/27/2021	0.00288	0.00185 (J)	0.00211	0.00184 (J)	0.00143 (J)
10/18/2021				0.00117 (J)	0.0141
10/19/2021		0.00225			
10/20/2021	0.00104 (J)		0.00734		
4/18/2022					0.00439
4/19/2022		0.00151 (J)		0.00206	
4/20/2022			0.0064		
4/21/2022	0.0017 (J)				
10/18/2022				0.00114 (J)	0.00512
10/19/2022		0.00203			
10/24/2022	0.00148 (J)		0.00708		
4/17/2023					0.00232
4/18/2023	0.00131 (J)	0.00184 (J)	0.00976	0.00111 (J)	
11/2/2023	0.000747 (J)	0.000935 (J)	0.00224	0.00081 (J)	0.00166 (J)
Mean	0.005142	0.005542	0.01073	0.004063	0.005913
Std. Dev.	0.004098	0.004349	0.01137	0.004265	0.003572
Upper Lim.	0.002392	0.01	0.011	0.003405	0.006462
Lower Lim.	0.001106	0.00174	0.005	0.001101	0.002343



# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	0.298	0.0574	0.0588		
3/3/2018	0.272	0.0591	0.109		
4/14/2018	0.29	0.0602	0.732		
5/26/2018	0.334	0.149	0.174		
6/23/2018	0.237	0.0597	0.148		
7/29/2018	0.73	0.161			
9/2/2018	0.274	0.0712			
10/19/2018	0.265			0.176	0.041
11/27/2018	0.255				0.039
12/24/2018	0.265	0.05	0.022		0.023
1/22/2019					0.076
4/22/2019					0.051
6/18/2019				0.338	0.026
8/13/2019					0.045
10/29/2019				0.765	0.046
11/29/2019				0.515	0.051
12/18/2019				0.481	0.033
1/22/2020	0.298	0.321	0.045	0.564	0.036
4/23/2020	0.211	0.061	0.0861	0.371	0.0241
7/22/2020				0.448	
10/13/2020					0.067
10/14/2020	0.357	0.121	1.07	0.332	
4/27/2021	0.348	0.0711	0.0735	0.541	0.0256
10/18/2021				0.389	0.127
10/19/2021		0.0728			
10/20/2021	0.412		0.0459		
4/18/2022					0.034
4/19/2022		0.113		0.468	
4/20/2022			0.0439		
4/21/2022	0.354				
10/18/2022				0.4	0.0264
10/19/2022		0.0925			
10/24/2022	0.263		0.0498		
4/17/2023					0.0226
4/18/2023	0.289	0.0547	0.117	0.335	
11/2/2023	0.286	0.0593	0.0673	0.372	0.0316
Mean	0.3178	0.09612	0.1895	0.433	0.04344
Std. Dev.	0.1107	0.06718	0.2988	0.135	0.02503
Upper Lim.	0.354	0.121	0.174	0.5245	0.05068
Lower Lim.	0.263	0.0591	0.045	0.3415	0.02975

# Confidence Interval

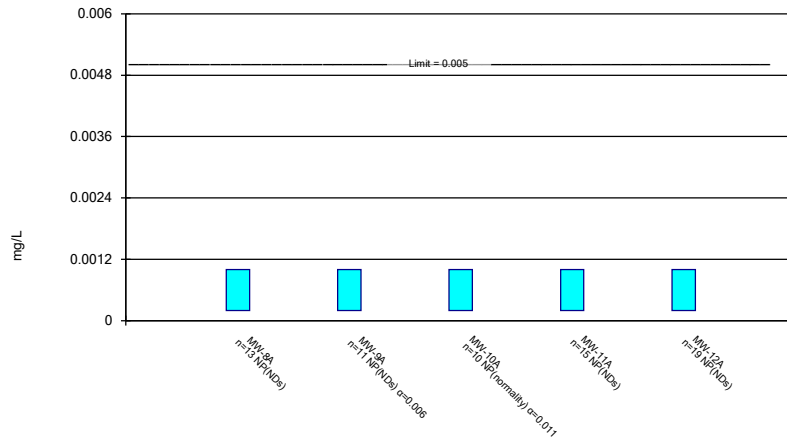
Constituent: Beryllium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
3/3/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
4/14/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
5/26/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
6/23/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
7/29/2018	<0.01 (o)	<0.01 (o)			
9/2/2018	<0.001	<0.001			
10/19/2018	<0.001			<0.001	<0.001
11/27/2018	<0.001				<0.001
12/24/2018	<0.001	<0.001	<0.001		<0.001
1/22/2019					<0.001
4/22/2019					<0.001
6/18/2019				<0.001	<0.001
8/13/2019					0.002
10/29/2019				<0.001	0.002
11/29/2019				<0.001	<0.001
12/18/2019				<0.001	0.002
1/22/2020	<0.001	0.0016	<0.001	0.0011	0.0014
4/23/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
7/22/2020				0.00039 (J)	
10/13/2020					0.000258 (J)
10/14/2020	0.000585 (J)	0.000391 (J)	0.00368	<0.0002	
4/27/2021	0.000347 (J)	<0.0002	<0.0002	0.000502 (J)	<0.0002
10/18/2021				<0.0002	0.00061 (J)
10/19/2021		<0.0002			
10/20/2021	<0.0002		<0.0002		
4/18/2022					0.000482 (J)
4/19/2022		0.000369 (J)		0.000322 (J)	
4/20/2022			<0.0002		
4/21/2022	0.000273 (J)				
10/18/2022				<0.0002	0.000343 (J)
10/19/2022		0.000205 (J)			
10/24/2022	<0.0002		<0.0002		
4/17/2023					<0.0002
4/18/2023	<0.0002	<0.0002	0.000252 (J)	<0.0002	
11/2/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mean	0.0005542	0.0005059	0.0007132	0.0005676	0.0008891
Std. Dev.	0.0003812	0.000477	0.001093	0.0003896	0.0006186
Upper Lim.	0.001	0.001	0.001	0.001	0.0014
Lower Lim.	0.0002	0.0002	0.0002	0.0002	0.000258

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

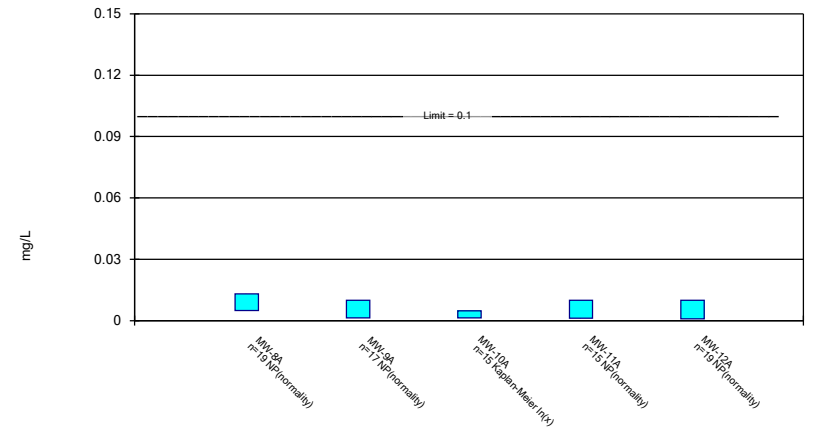


Constituent: Cadmium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### 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.

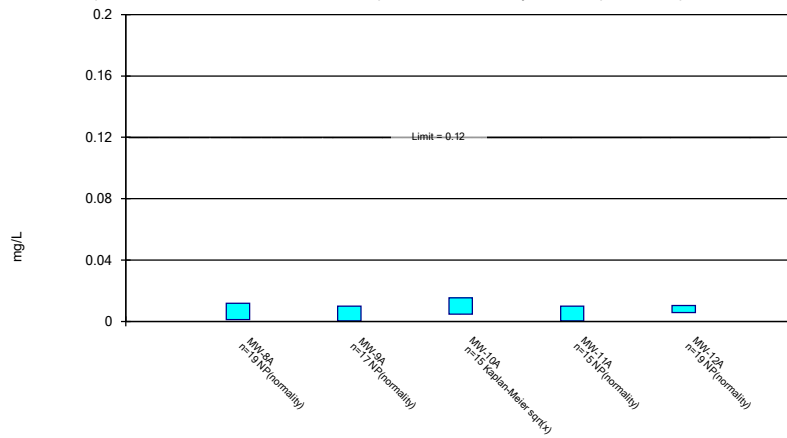


Constituent: Chromium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### 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.

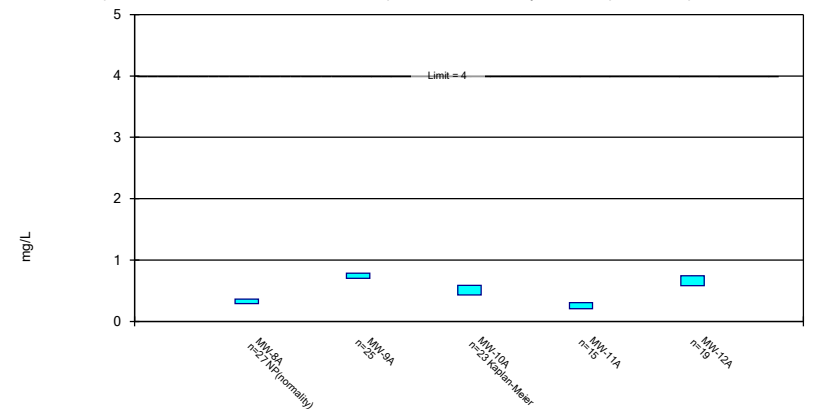


Constituent: Cobalt Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### 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 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
3/3/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
4/14/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
5/26/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
6/23/2018	<0.01 (o)	<0.01 (o)	<0.01 (o)		
7/29/2018	<0.01 (o)	<0.01 (o)			
9/2/2018	0.00289	<0.001			
10/19/2018	<0.001			<0.001	<0.001
11/27/2018	<0.001				<0.001
12/24/2018	<0.001	<0.001	<0.001		<0.001
1/22/2019					<0.001
4/22/2019					<0.001
6/18/2019				<0.001	<0.001
8/13/2019					<0.001
10/29/2019				<0.001	<0.001
11/29/2019				<0.001	<0.001
12/18/2019				<0.001	<0.001
1/22/2020	<0.001	<0.001	<0.001	<0.001	<0.001
4/23/2020	<0.0002	<0.0002	0.00023 (J)	<0.0002	<0.0002
7/22/2020				<0.0002	
10/13/2020					<0.0002
10/14/2020	<0.0002	<0.0002	0.0009 (J)	<0.0002	
4/27/2021	<0.0002	<0.0002	0.000272 (J)	<0.0002	<0.0002
10/18/2021				<0.0002	0.000234 (J)
10/19/2021		<0.0002			
10/20/2021	<0.0002		<0.0002		
4/18/2022					<0.0002
4/19/2022		<0.0002		<0.0002	
4/20/2022			<0.0002		
4/21/2022	<0.0002				
10/18/2022				<0.0002	0.000205 (J)
10/19/2022		<0.0002			
10/24/2022	<0.0002		<0.0002		
4/17/2023					<0.0002
4/18/2023	<0.0002	<0.0002	<0.0002	<0.0002	
11/2/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mean	0.0006531	0.0004182	0.0004402	0.00052	0.0006652
Std. Dev.	0.0007707	0.0003737	0.000365	0.0004057	0.0004034
Upper Lim.	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0002	0.0002	0.0002	0.0002	0.0002

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	0.0111	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	0.0125		
5/26/2018	0.0167	0.011	<0.01		
6/23/2018	<0.01	<0.01	<0.01		
7/29/2018	0.0615	<0.01			
9/2/2018	0.00783	0.00195			
10/19/2018	<0.01			<0.01	<0.01
11/27/2018	<0.01				<0.01
12/24/2018	<0.01	<0.01	<0.01		<0.01
1/22/2019					<0.01
4/22/2019					<0.01
6/18/2019				<0.01	<0.01
8/13/2019					<0.01
10/29/2019				<0.01	<0.01
11/29/2019				<0.01	<0.01
12/18/2019				<0.01	<0.01
1/22/2020	<0.01	<0.01	<0.01	<0.01	<0.01
4/23/2020	0.00323 (J)	0.00126 (J)	0.00169 (J)	0.00236 (J)	<0.0004
7/22/2020				0.00644	
10/13/2020					0.00198 (J)
10/14/2020	0.0146	0.00507	0.0287	0.0019 (J)	
4/27/2021	0.0131	0.00196 (J)	0.00124 (J)	0.00306 (J)	0.00059 (J)
10/18/2021				0.00121 (J)	0.00447
10/19/2021		0.000462 (J)			
10/20/2021	0.00118 (J)		0.00104 (J)		
4/18/2022					0.00344 (J)
4/19/2022		0.00267 (J)		0.00416	
4/20/2022			0.00201 (J)		
4/21/2022	0.0111				
10/18/2022				0.00125 (J)	0.00238 (J)
10/19/2022		0.00208 (J)			
10/24/2022	0.00993		0.00223 (J)		
4/17/2023					0.000811 (J)
4/18/2023	0.00501	<0.0004	0.00443	<0.0004	
11/2/2023	0.00465	<0.0004	0.00206 (J)	0.000405 (J)	<0.0004
Mean	0.0121	0.005721	0.007727	0.005412	0.006551
Std. Dev.	0.01254	0.004413	0.007185	0.004151	0.004264
Upper Lim.	0.0131	0.01	0.004725	0.01	0.01
Lower Lim.	0.00501	0.00126	0.00141	0.00121	0.000811

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	0.0258		
5/26/2018	0.0117	0.01	0.0133		
6/23/2018	<0.01	<0.01	0.011		
7/29/2018	0.0524	<0.01			
9/2/2018	<0.01	<0.01			
10/19/2018	<0.01			<0.01	<0.01
11/27/2018	<0.01				<0.01
12/24/2018	<0.01	<0.01	<0.01		<0.01
1/22/2019					0.013
4/22/2019					<0.01
6/18/2019				<0.01	<0.01
8/13/2019					<0.01
10/29/2019				<0.01	<0.01
11/29/2019				<0.01	<0.01
12/18/2019				<0.01	<0.01
1/22/2020	<0.01	<0.01	<0.01	<0.01	<0.01
4/23/2020	<0.0002	0.000419 (J)	0.0209	0.000556 (J)	0.00326 (J)
7/22/2020				0.00218 (J)	
10/13/2020					0.00644
10/14/2020	0.00589	0.00217 (J)	0.0381	0.000225 (J)	
4/27/2021	0.00401 (J)	0.000489 (J)	0.00325 (J)	0.00097 (J)	0.00387 (J)
10/18/2021				<0.0002	0.0104
10/19/2021		<0.0002			
10/20/2021	<0.0002		0.00449 (J)		
4/18/2022					0.00567
4/19/2022		0.00139 (J)		0.00168 (J)	
4/20/2022			0.00595		
4/21/2022	0.00277 (J)				
10/18/2022				0.00027 (J)	0.0108
10/19/2022		0.000853 (J)			
10/24/2022	0.000986 (J)		0.00788		
4/17/2023					0.00313 (J)
4/18/2023	0.00142 (J)	<0.0002	0.0106	0.000209 (J)	
11/2/2023	0.00105 (J)	0.000345 (J)	0.00294 (J)	0.000383 (J)	0.00969
Mean	0.00898	0.005651	0.01228	0.004445	0.008751
Std. Dev.	0.01134	0.004777	0.009407	0.004727	0.002807
Upper Lim.	0.0117	0.01	0.01534	0.01	0.0104
Lower Lim.	0.00105	0.000419	0.004697	0.000225	0.00567

# Confidence Interval

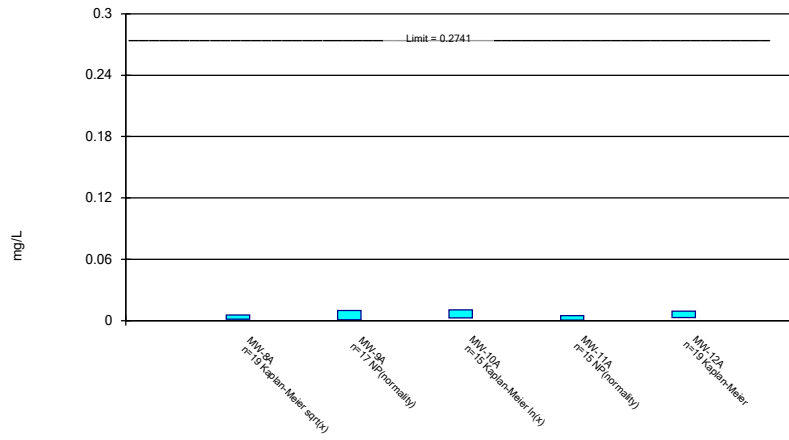
Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
2/26/2017	0.39	0.76	0.32		
7/29/2017	0.359	0.747	0.533		
9/10/2017	0.346	0.717	<1		
10/14/2017	0.31	0.679	0.5		
11/11/2017	0.322	0.703	0.394		
1/6/2018	0.344	0.729	0.522		
3/3/2018	0.363	0.784	<1		
4/14/2018	0.396	0.822	<1		
5/26/2018	0.333	0.702	<1		
6/23/2018	0.743	0.834	0.826		
7/29/2018	0.415	0.85			
9/2/2018	0.352	0.735			
10/19/2018	0.38			0.43	0.62
11/27/2018	0.26				0.78
12/24/2018					0.65
1/22/2019					0.85
1/29/2019	0.24				
1/30/2019		0.66	0.44		
4/22/2019	0.23	0.61	0.37		0.58
6/18/2019	0.3	0.66	0.43	0.36	0.67
8/13/2019					0.66
10/29/2019	0.35	0.73	0.5	0.27	0.74
11/29/2019				0.28	0.73
12/18/2019				0.27	0.67
1/22/2020	0.36	0.77	0.58	0.29	0.7
4/23/2020	0.122	0.763	0.296	0.219	0.56
7/22/2020				0.195	
10/13/2020					0.481 (J)
10/14/2020	0.29	0.574	0.285 (J)	0.113	
4/27/2021	0.415	0.834	0.48	0.219	0.811
10/18/2021				0.265	0.85
10/19/2021		0.842			
10/20/2021	0.26		0.64		
4/18/2022					0.33 (J)
4/19/2022		0.828		0.214	
4/20/2022			0.646		
4/21/2022	0.337				
10/18/2022				0.28	0.705
10/19/2022		0.846			
10/24/2022	0.266		0.611		
4/17/2023					0.448
4/18/2023	0.35	0.62	0.727	0.243	
11/2/2023	0.307	0.792	0.696	0.182	0.769
Mean	0.3385	0.7436	0.5998	0.2553	0.6634
Std. Dev.	0.1032	0.07933	0.2321	0.07473	0.1375
Upper Lim.	0.363	0.7832	0.588	0.306	0.7439
Lower Lim.	0.29	0.7041	0.4302	0.2047	0.5829

### 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.

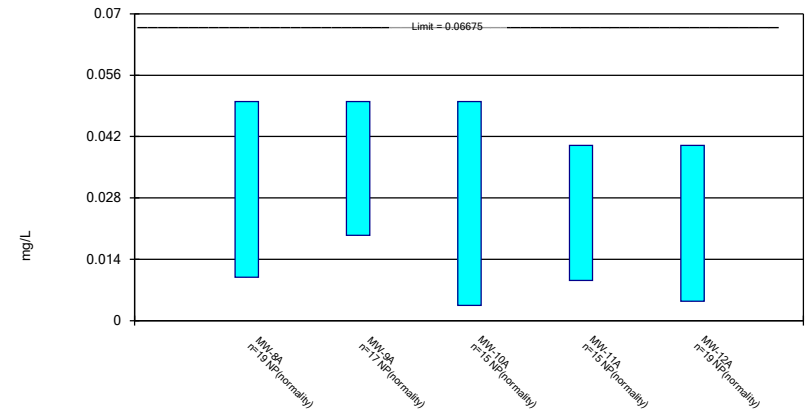


Constituent: Lead Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

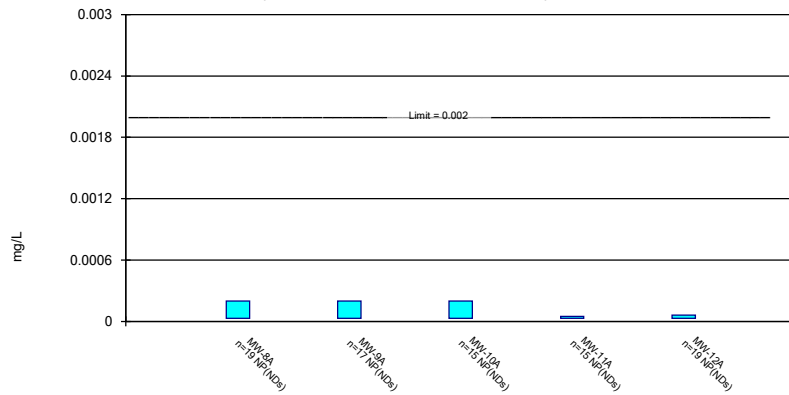


Constituent: Lithium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

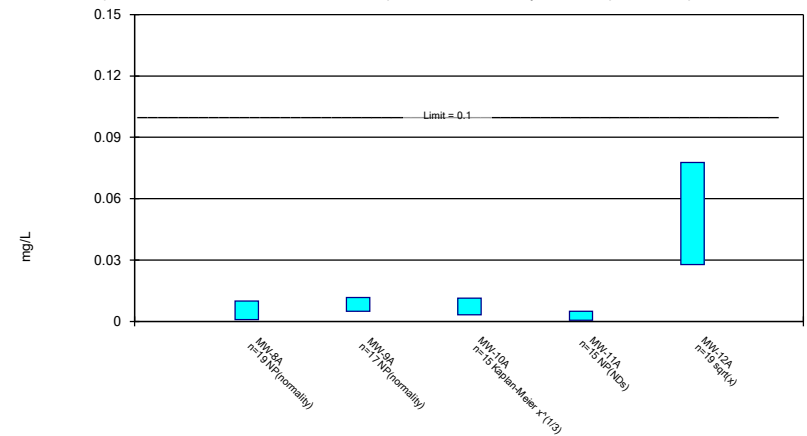


Constituent: Mercury Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### 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 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final



# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	<0.01	<0.01		
3/3/2018	<0.01	<0.01	<0.01		
4/14/2018	<0.01	<0.01	0.0222		
5/26/2018	<0.01	0.0114	0.0128		
6/23/2018	<0.01	<0.01	<0.01		
7/29/2018	0.0254	<0.01			
9/2/2018	0.00232	0.00095			
10/19/2018	<0.005			<0.005	<0.005
11/27/2018	<0.005				<0.005
12/24/2018	<0.005	<0.005	<0.005		<0.005
1/22/2019					0.008
4/22/2019					0.005
6/18/2019				0.006	<0.005
8/13/2019					0.01
10/29/2019				0.008	0.021
11/29/2019				<0.005	0.008
12/18/2019				<0.005	0.012
1/22/2020	<0.005	0.01	0.011	0.005	0.013
4/23/2020	<0.0006	0.00135 (J)	0.00403	0.00107 (J)	<0.0006
7/22/2020				0.00444	
10/13/2020					0.00458
10/14/2020	0.00706	0.00263	0.0881	<0.0006	
4/27/2021	0.00437	0.000899 (J)	0.00334	0.00106 (J)	0.000997 (J)
10/18/2021				<0.0006	0.0112
10/19/2021		<0.0006			
10/20/2021	<0.0006		0.00172 (J)		
4/18/2022					0.00884
4/19/2022		0.00334		0.00291	
4/20/2022			0.00208		
4/21/2022	0.00327				
10/18/2022				<0.0006	0.00534
10/19/2022		0.0017 (J)			
10/24/2022	0.00122 (J)		0.0032		
4/17/2023					0.00293
4/18/2023	0.00615	<0.0006	0.00574	<0.0006	
11/2/2023	0.00304	0.000731 (J)	0.00274	<0.0006	<0.0006
Mean	0.006528	0.005247	0.0128	0.003099	0.006952
Std. Dev.	0.005626	0.004421	0.02154	0.00251	0.005012
Upper Lim.	0.005456	0.01	0.01046	0.005	0.009179
Lower Lim.	0.001422	0.000899	0.00255	0.0006	0.002862

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.05	<0.05	<0.05		
3/3/2018	<0.05	<0.05	<0.05		
4/14/2018	<0.05	<0.05	<0.05		
5/26/2018	<0.05	<0.05	<0.05		
6/23/2018	<0.05	<0.05	<0.05		
7/29/2018	<0.05	<0.05			
9/2/2018	0.0044	0.0136			
10/19/2018	<0.04			<0.04	0.041
11/27/2018	<0.04				<0.04
12/24/2018	<0.04	<0.04	<0.04		<0.04
1/22/2019					<0.04
4/22/2019					<0.04
6/18/2019				<0.04	<0.04
8/13/2019					<0.04
10/29/2019				<0.04	<0.04
11/29/2019				<0.04	<0.04
12/18/2019				<0.04	<0.04
1/22/2020	<0.04	<0.04	<0.04	<0.04	<0.04
4/23/2020	0.0102	0.0275	0.00552	0.0094	0.00975
7/22/2020				0.0114	
10/13/2020					0.00301 (J)
10/14/2020	0.0153	0.0227	0.017	0.00917	
4/27/2021	0.0204 (J)	0.0202	0.00346 (J)	0.00877	0.00528
10/18/2021				0.0092	0.00444 (J)
10/19/2021		0.0195			
10/20/2021	0.00903		0.00311 (J)		
4/18/2022					0.00346 (J)
4/19/2022		0.0225		0.011	
4/20/2022			0.00292 (J)		
4/21/2022	0.0129				
10/18/2022				0.00969	0.00444 (J)
10/19/2022		0.0227			
10/24/2022	0.00993		0.00385 (J)		
4/17/2023					0.00346 (J)
4/18/2023	0.00907	0.0172	0.00553	0.00839	
11/2/2023	0.0102	0.0169	0.00652	0.0113	0.0049 (J)
Mean	0.02955	0.03311	0.02519	0.02189	0.02525
Std. Dev.	0.01843	0.01461	0.02174	0.01533	0.01793
Upper Lim.	0.05	0.05	0.05	0.04	0.04
Lower Lim.	0.00993	0.0195	0.00346	0.00917	0.00444

# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.0002	<0.0002	<0.0002		
3/3/2018	<0.0002	<0.0002	<0.0002		
4/14/2018	<0.0002	<0.0002	<0.0002		
5/26/2018	<0.0002	<0.0002	<0.0002		
6/23/2018	<0.0002	<0.0002	<0.0002		
7/29/2018	<0.0002	<0.0002			
9/2/2018	<0.0002	<0.0002			
10/19/2018	<5E-05			<5E-05	<5E-05
11/27/2018	<0.0005				<5E-05
12/24/2018	<5E-05	<5E-05	<5E-05		<5E-05
1/22/2019					6.8E-05
4/22/2019					<5E-05
6/18/2019				<5E-05	<5E-05
8/13/2019					<5E-05
10/29/2019				<5E-05	<5E-05
11/29/2019				<5E-05	<5E-05
12/18/2019				<5E-05	<5E-05
1/22/2020	<0.00015	<5E-05	<5E-05	<5E-05	<5E-05
4/23/2020	<0.0003	<3E-05	<3E-05	<3E-05	<3E-05
7/22/2020				<3E-05	
10/13/2020					<3E-05
10/14/2020	<3E-05	<3E-05	3.4E-05 (J)	<3E-05	
4/27/2021	<3E-05	<3E-05	<3E-05	<3E-05	<3E-05
10/18/2021				<3E-05	6.1E-05 (JH)
10/19/2021		<3E-05			
10/20/2021	<3E-05		<3E-05		
4/18/2022					6.6E-05 (J)
4/19/2022		<3E-05		<3E-05	
4/20/2022			<3E-05		
4/21/2022	<3E-05				
10/18/2022				<3E-05	0.000175 (J)
10/19/2022		<3E-05			
10/24/2022	<3E-05		<3E-05		
4/17/2023					<3E-05
4/18/2023	<3E-05	<3E-05	<3E-05	<3E-05	
11/2/2023	<3E-05	<3E-05	<3E-05	<3E-05	<3E-05
Mean	0.00014	0.0001024	8.96E-05	3.8E-05	5.368E-05
Std. Dev.	0.000125	8.445E-05	8.108E-05	1.014E-05	3.168E-05
Upper Lim.	0.0002	0.0002	0.0002	5E-05	6.1E-05
Lower Lim.	3E-05	3E-05	3E-05	3E-05	3E-05

# Confidence Interval

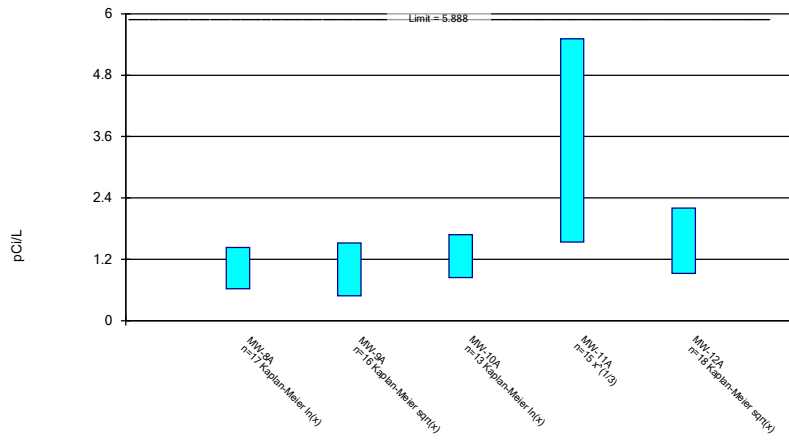
Constituent: Molybdenum (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.01	0.014	<0.01		
3/3/2018	<0.01	0.0128	<0.01		
4/14/2018	<0.01	0.0124	<0.01		
5/26/2018	<0.01	0.0105	<0.01		
6/23/2018	<0.01	0.0117	<0.01		
7/29/2018	<0.01	<0.01			
9/2/2018	<0.01	0.0102			
10/19/2018	<0.005			<0.005	0.027
11/27/2018	<0.005				0.242
12/24/2018	<0.005	0.011	<0.005		0.117
1/22/2019					0.106
4/22/2019					0.057
6/18/2019				<0.005	0.03
8/13/2019					0.054
10/29/2019				<0.005	0.093
11/29/2019				<0.005	0.057
12/18/2019				<0.005	0.043
1/22/2020	<0.005	0.008	<0.005	<0.005	0.048
4/23/2020	0.00145 (J)	0.00579	0.00613	<0.0006	0.0306
7/22/2020				<0.0006	
10/13/2020					0.0411
10/14/2020	0.000698 (J)	0.00448 (J)	0.0329	<0.0006	
4/27/2021	0.00185 (J)	0.00556	0.00204 (J)	<0.0006	0.0445
10/18/2021				<0.0006	0.0605
10/19/2021		0.00516			
10/20/2021	<0.0006		0.0109		
4/18/2022					0.00822
4/19/2022		0.00368 (J)		<0.0006	
4/20/2022			0.0131		
4/21/2022	0.000879 (J)				
10/18/2022				<0.0006	0.0166
10/19/2022		0.00402 (J)			
10/24/2022	0.00157 (J)		0.00927		
4/17/2023					0.00582
4/18/2023	0.000954 (J)	0.00507	0.0134	<0.0006	
11/2/2023	0.000643 (J)	0.00489 (J)	0.0129	<0.0006	0.0263
Mean	0.005192	0.007897	0.01071	0.00236	0.0583
Std. Dev.	0.004074	0.00358	0.006949	0.002231	0.0538
Upper Lim.	0.01	0.0117	0.01142	0.005	0.07774
Lower Lim.	0.000879	0.00489	0.003224	0.0006	0.02773

### Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

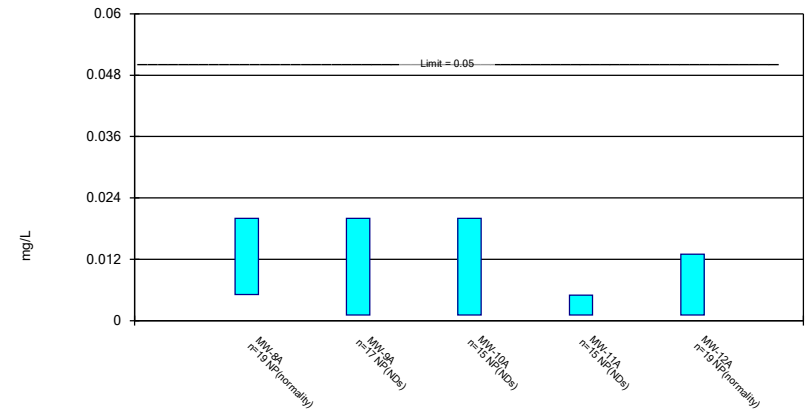


Constituent: Ra 226 and 228 Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

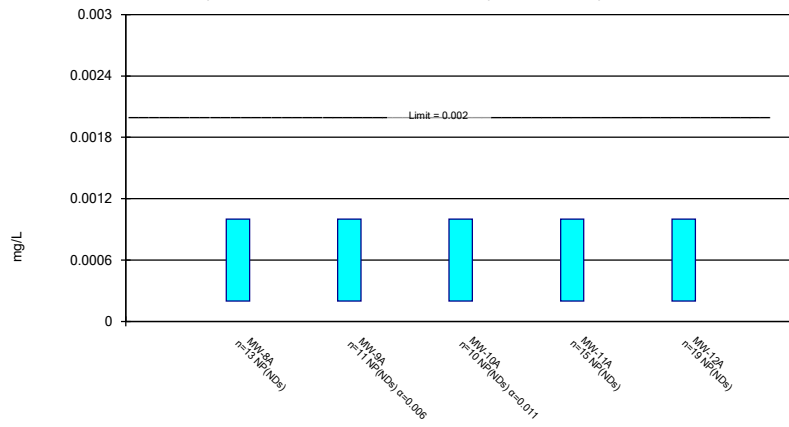


Constituent: Selenium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Thallium Analysis Run 1/23/2024 12:18 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

# Confidence Interval

Constituent: Ra 226 and 228 (pCi/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
3/3/2018	0.913	0.8328	1.444		
4/14/2018	0.843	0.13573	0.882		
5/26/2018	3.16	1.005			
6/23/2018	0.7	0.658	1.753		
7/29/2018	0.423	1.586			
9/2/2018	1.397	0.421			
10/19/2018	<0.954			1.414	1.308
11/27/2018	<1.145				<0.832
12/24/2018	<1.05	<2.288	1.792		3.46
1/22/2019					<1.106
4/22/2019					2.141
6/18/2019				4.34	5.588
10/29/2019				<1.311	<2.885
11/29/2019				17.67	<6.223
12/18/2019				4.65	<2.648
1/22/2020	4.373	2.65	3.13	8.85	2.191
4/23/2020		<0.74	<0.94	3.36	1.2
7/22/2020				2.41	
10/13/2020					0.86
10/14/2020	<0.77	2.21	1.05	2.87	
4/27/2021	<1.02	<0.83	<0.77	3.12	1.04
10/18/2021				<0.95	1.12
10/19/2021		<0.91			
10/20/2021	1.51		0.91		
4/18/2022					<0.92
4/19/2022		<0.94		2.1	
4/20/2022			<0.92		
4/21/2022	<0.97				
10/18/2022				1.77	2.88
10/19/2022		0.954			
10/24/2022	1.14		0.966		
4/17/2023					0.575
4/18/2023	0.507	0.718	0.73	2.18	
11/2/2023	1.83	3.55	2.37	4.51	1.72
Mean	1.336	1.277	1.358	4.025	2.15
Std. Dev.	1.001	0.9267	0.7245	4.296	1.609
Upper Lim.	1.43	1.516	1.678	5.511	2.2
Lower Lim.	0.6253	0.4852	0.8433	1.538	0.9214

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.02	<0.02	<0.02		
3/3/2018	<0.02	<0.02	<0.02		
4/14/2018	<0.02	<0.02	<0.02		
5/26/2018	<0.02	<0.02	<0.02		
6/23/2018	<0.02	<0.02	<0.02		
7/29/2018	<0.02	<0.02			
9/2/2018	0.00509	<0.002			
10/19/2018	0.005			<0.005	0.015
11/27/2018	0.006				0.009
12/24/2018	<0.005	<0.005	<0.005		0.012
1/22/2019					0.015
4/22/2019					<0.005
6/18/2019				0.035	0.009
8/13/2019					0.007
10/29/2019				<0.005	0.013
11/29/2019				<0.005	0.011
12/18/2019				<0.005	0.015
1/22/2020	0.018	<0.005	<0.005	<0.005	0.018
4/23/2020	0.0139	<0.0011	<0.0011	<0.0011	0.00158 (J)
7/22/2020				<0.0011	
10/13/2020					<0.0011
10/14/2020	0.0132	<0.0011	0.00314	<0.0011	
4/27/2021	0.013	<0.0011	<0.0011	<0.0011	<0.0011
10/18/2021				<0.0011	<0.0011
10/19/2021		<0.0011			
10/20/2021	<0.0011		<0.0011		
4/18/2022					<0.0011
4/19/2022		<0.0011		<0.0011	
4/20/2022			<0.0011		
4/21/2022	0.01				
10/18/2022				<0.0011	<0.0011
10/19/2022		<0.0011			
10/24/2022	0.00964		<0.0011		
4/17/2023					<0.0011
4/18/2023	0.00943	<0.0011	<0.0011	<0.0011	
11/2/2023	0.00588	<0.0011	<0.0011	<0.0011	<0.0011
Mean	0.01238	0.008282	0.008056	0.00466	0.007278
Std. Dev.	0.006572	0.009005	0.008843	0.008599	0.006117
Upper Lim.	0.02	0.02	0.02	0.005	0.013
Lower Lim.	0.00509	0.0011	0.0011	0.0011	0.0011

# Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 1/23/2024 12:20 PM

Big Fork Ranch Facility Client: Enviro Clean Cardinal Data: 231102 EVANS AND ASSOCIATES AM - final

	MW-8A	MW-9A	MW-10A	MW-11A	MW-12A
1/6/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
3/3/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
4/14/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
5/26/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
6/23/2018	<0.02 (o)	<0.02 (o)	<0.02 (o)		
7/29/2018	<0.02 (o)	<0.02 (o)			
9/2/2018	0.00036	<0.002			
10/19/2018	<0.001			<0.001	<0.001
11/27/2018	<0.001				<0.001
12/24/2018	<0.001	<0.001	<0.001		<0.001
1/22/2019					<0.001
4/22/2019					<0.001
6/18/2019				<0.001	<0.001
8/13/2019					<0.001
10/29/2019				<0.001	<0.001
11/29/2019				<0.001	<0.001
12/18/2019				<0.001	<0.001
1/22/2020	<0.001	<0.001	<0.001	<0.001	<0.001
4/23/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
7/22/2020				<0.0002	
10/13/2020					<0.0002
10/14/2020	<0.0002	<0.0002	0.000475 (J)	<0.0002	
4/27/2021	0.000252 (J)	<0.0002	<0.0002	<0.0002	<0.0002
10/18/2021				<0.0002	<0.0002
10/19/2021		<0.0002			
10/20/2021	<0.0002		<0.0002		
4/18/2022					<0.0002
4/19/2022		<0.0002		<0.0002	
4/20/2022			<0.0002		
4/21/2022	<0.0002				
10/18/2022				<0.0002	<0.0002
10/19/2022		<0.0002			
10/24/2022	<0.0002		<0.0002		
4/17/2023					<0.0002
4/18/2023	<0.0002	<0.0002	<0.0002	<0.0002	
11/2/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mean	0.0004625	0.0005091	0.0003875	0.00052	0.0006632
Std. Dev.	0.0003756	0.000589	0.000334	0.0004057	0.0004058
Upper Lim.	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0002	0.0002	0.0002	0.0002	0.0002